

GRAIN & FEED JOURNALS

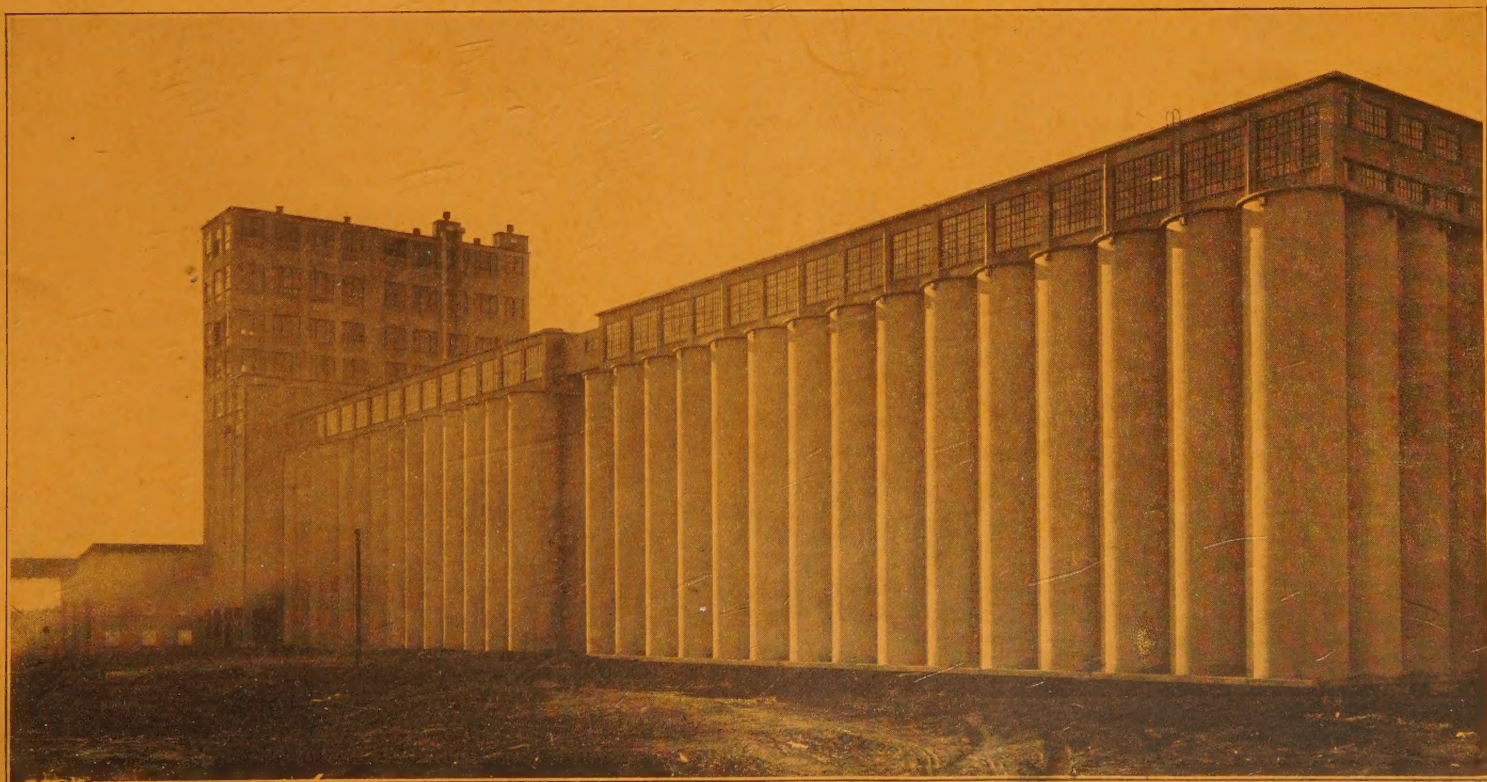
CONSOLIDATED

A Merger of Grain Dealers Journal, American Elevator & Grain Trade, Grain World and Price Current-Grain Reporter

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Cupola of Concrete Public Elevator at Houston, Texas, Was Badly Shattered by Three Dust Explosions Dec. 18 [See Page 533].

Directory of the Grain Trade

In Organized Markets Only Members of the Local Grain Exchange Will Be Listed

HAVING YOUR name in this directory will introduce you to many old and new firms during the year, whom you do not know or could not meet in any other way. Many new concerns are looking for connections, seeking an outlet or an inlet, possibly in your territory. It is certain that they turn to this recognized Directory, and act upon the suggestions it gives them. The cost is only \$10 per year.

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Grain & Feed Journals Consolidated, a merger of Grain Dealers Journal (Est. 1898), American Elevator & Grain Trade (Est. 1882), Grain World (Est. 1928), and Price-Current-Grain Reporter (Est. 1844). Published on the 2nd and 4th Wednesday of each month in the interest of progressive wholesalers in grain, feed, and field seed. 332 South La Salle Street, Chicago, Illinois, U. S. A. Price \$2.00 per year, 25c per copy. Entered as second class matter November 27, 1930, at the Post Office at Chicago, Ill., under the act of March 3, 1879. Vol LXXXIII. No. 12. December 27, 1939.

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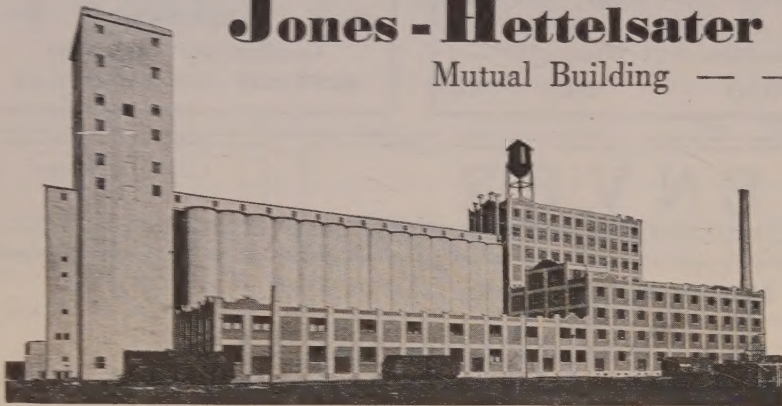
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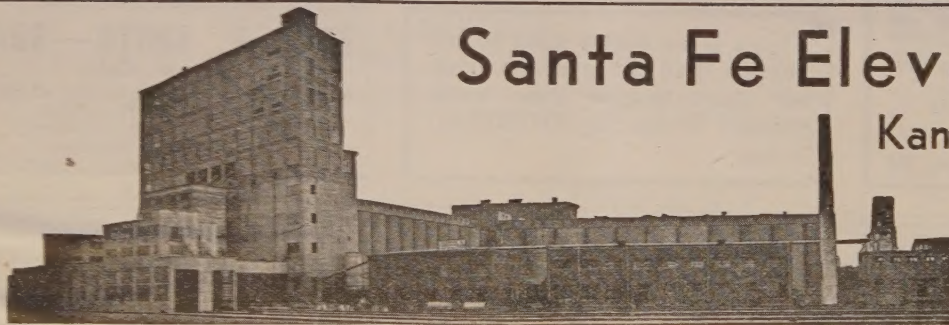
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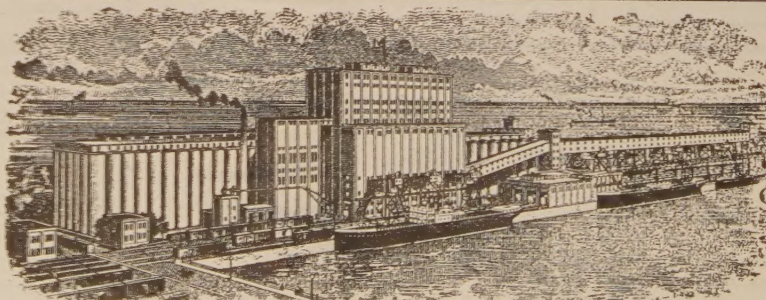
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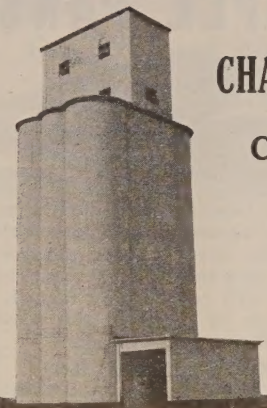
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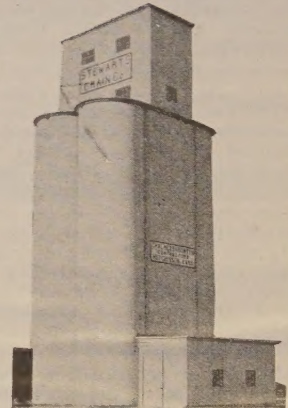
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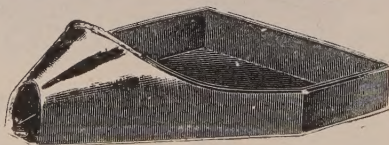
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BARGAIN IF TAKEN AT ONCE—Some one is always looking for an elevator at a good grain point and reads these ads just like you're doing now, so if you wish to dispose of your present property, enlarge your present interests, or embark in the grain business, USE these columns to your best advantage just as others are doing. WE WILL assist you in the composition of copy free. We are in business to be of service to YOU. There is no wrong time to put an ad in the columns of the Journal. TRY IT.

SITUATION WANTED

WANTED—Position as manager in country elevator in Indiana; nineteen years' experience in grain and feed business; good reference. Address 83X6, Grain & Feed Journals, Chicago.

SEEDS FOR SALE

FOR SALE—Lespedeza, Cow Peas, Soybeans. Inquiries invited. Shultz Seed Co., Inc., Olney, Illinois.

GOOD FARM SEEDS—Hybrid seed corn, Iowa 931-939, Iowa 13 dealers wanted; German Millet, Sweet Clover, Alfalfa, Red Clover, Wis. 38 Seed Barley; other farm seeds. Allen Joslin Seed Farm, Holstein, Iowa.

WHEN YOU want field or grass seed, write us, and we will put you in communication with nearby dealers, who have what you seek. The service is free. Information Bureau, Grain & Feed Journals, 332 S. La Salle St., Chicago, Ill.

Grain Contracts with Farmers

Form 10 D. C. is recognized as the best for contracting grain and seed from farmers, and is in extensive use by grain dealers. Do not take chances with verbal contracts. They lead to misunderstandings, differences and disputes, as well as loss of profits and customers. Contract certifies that farmer:

"has sold.....bushels of.....at..... cents per bushel, to grade No....., to be delivered at.....on or before....." It also certifies that, "if inferior grain is delivered, the market difference at which such grain is selling on day of delivery shall be deducted. Any extension of time at buyer's option."

Originals are printed on bond paper, machine perforated so they may be easily removed; duplicates are of manila. All have spaces ruled on the back for recording each load delivered on the contract. Check bound, size 5½x8½ inches, 100 sets numbered in duplicate and supplied with 4 sheets of carbon paper. Order Form 10 DC Improved. Price \$1.10, f. o. b. Chicago. Wt. 1 lb.

Triplicating book is same as 10 DC and contains 100 additional copies of the contract printed on strong tissue and 4 sheets of dual faced carbon. Order Form 10 TC. Price \$1.35, f. o. b. Chicago. Weight, 21 ozs.

Grain & Feed Journals

Consolidated

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Experience of Other Dealers

GRAIN & FEED JOURNALS CONSOLIDATED

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Gentlemen:—In order that I may profit by the experience of other dealers in grain and feed, please send me the semi-monthly *Grain & Feed Journals*. Enclosed find Two Dollars for one year's subscription.

Name of Firm.....

Capacity of Elevator.....

Post Office.....

..... bus.

State.....

MACHINES FOR SALE

CORN CUTTER & Grader—has motor—used very little. 82A7, Grain & Feed Jnrls., Chicago.

FEED MIXER for sale, has motor, and a late machine. Need space. Will sacrifice. Write 82A8, Grain & Feed Journals, Chicago, Ill.

HAMMER MILL with 25-h.p. motor and all attachments. Priced to sell. Write 82A10, Grain & Feed Journals, Chicago, Ill.

FOR SALE—1 four bushel Richardson automatic scale, Model 9E1. Pfister Hybrid Corn Co., El Paso, Illinois.

FOR SALE—Rebuilt Attrition and Hammer Mills, Mixers, Corn Cutters, Engines, Motors, Etc. Weaver Sales Corp., Corn Exchange, Minneapolis, Minn.

FOR SALE—60 h.p. GE, three phase 60 cycle, induction motor, voltage 220, 700 r.p.m., complete with pulley, base and starter: \$375.00; used less than year. Old-Fashioned Millers, Inc., St. Paul, Minnesota.

DIESEL ENGINE—30 h.p. Venn Severn, 350 r.p.m., in first class condition; can't be beat for cheap power, we had to have more power and replaced it with a 60 h.p., absolutely was not taken out because of trouble. E. H. Morris, Crossville, Ill.

CORN SHELLERS AND CLEANERS—Good used No. 22, No. 23, and No. 24 Western Corn Shellers, and No. 33 and No. 34 Western Gyrating Cleaners; have one each of the above machines, priced to sell quickly, each one is in A-1 condition. Would sacrifice to anyone willing to buy them all. E. H. Morris, Crossville, Illinois.

THE WANTED-FOR SALE DEPARTMENT of GRAIN & FEED JOURNALS is a market place where buyer and seller, employer and employe, and those offering investments can meet to their mutual advantage and profit and it will pay every subscriber to give these columns a close study twice each month, because of the constantly changing variety of opportunities seeking your consideration.

MACHINES FOR SALE

FEED MIXER—one ton—floor level feed—has motor—good as new. Write 82A9, Grain & Feed Journals, Chicago, Ill.

FOR SALE—JB Mills, Rebuilt Guaranteed, Direct Connected & V Belt Drives. No's. 2-3-4, 25 to 100 h.p. Hammer Mill Parts & Supplies. Prices on request. Indiana Grain Machinery Co., 420-24 S. Meridian St., Indianapolis, Ind.

FOR SALE—New Steel King hammer mills, also used hammer mills, Blue Streaks, Jay Bees; Kelly Duplex & Gruendlers. Mixers, Clipper cleaners, bag sewing machines, Richardson automatic scales, hopper & truck scales, feeders, two and three high rolls and flaking rolls and engines. Write for prices. A. D. Hughes Co., Wayland, Mich.

Daily MARKET RECORD

A boon to the grain dealer who keeps a convenient, permanent record of daily market quotations for ready reference.

This book provides space for recording hourly Board of Trade radio or CND quotations for Wheat, Corn, Oats, Rye, and Barley. Spaces for a week's markets on a sheet; sixty sheets, size 9½ x 11½ inches, in a book. Well bound in tough pressboard. Shipping weight one pound. Order Form CND 97-5, Price \$1, plus postage.

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MOTORS—GENERATORS

MOTORS, REPAIRING and rewinding, rebuilt motors at reasonable prices. W. J. Meschberger Elevator & Repair Co., Inc., 820 Forest Ave., Fort Wayne, Ind.

Some SERVICE to your ads. I sold my elevator to the first man that answered the ad. But I received a nice number of inquiries, too. Kansas Dealer.

ELECTRICAL MACHINERY

Large stock of motors and generators, A.C. and D.C., new and rebuilt, at attractive prices. Special bargains in hammermill motors, 25 to 100 H.P., 1200 to 3600 R.P.M. Write for stock list and prices. Expert repair service. V. M. NUSSBAUM & CO., Fort Wayne, Indiana.

MOTORS-PUMPS: Guaranteed rebuilt electric motors, pumps, etc. Largest stock in Illinois, outside of Chicago. Will take your equipment in trade; also offer emergency motor repair and rewinding service. Distributors for Wagner and Peerless motors, specially adapted for farm and grain elevator application. We offer free engineering advice on your problems. Write us without obligation. New illustrated bulletin No. 23, just off the press, will be mailed on request. Rockford Power Machinery Co., 6th Ave. and 6th St., Rockford, Ill.

Davis Grain Tables

show at a glance, or with one addition, the value of any number of bushels and odd pounds of wheat, ear and shelled corn, oats, and barley, at any price from 12c to \$1.75 per bushel, by ½c rises. Well printed on book paper and bound, 256 pages, size 5½x7½ inches. Price, \$2.00, f. o. b. Chicago. Weight, 14 ounces.

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332 S. La Salle St., Chicago, Ill.



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two Cleaners in one

Convertible in 30 Seconds

Convenience, speed and economy—one Cleaner only with all the efficiency of two separate units . . . Seconds only required to shift gate and divert stream to either of the two independent sets of large-area screens and to correctly adjust the precision set air cleaning controls . . . A Super-built Cleaner offering today's greatest advantages for handling Corn and all Small Grains.

Reduces Investment 50%

You save—the cost of one Cleaner—one Motor—one Dust Collector . . . Installation expense is cut in two . . . Floor space reduced by half . . . Operator's attention is halved . . . Every expense incidental to cleaning is cut to a New Low—cleaning results will show a New High.

Ask for Bulletin J-363.

S. HOWES CO., Inc., Silver Creek, N. Y.

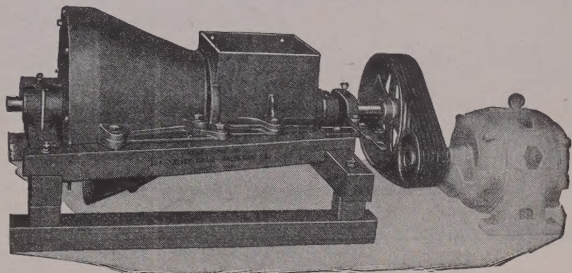
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**CORN — AND — SMALL GRAINS
SEPARATOR**

1940 Modernness—a supremely efficient, extremely economical general-purpose Cleaner.

Sidney Corn Shellers

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All shellers are adjustable for different kinds and sizes of corn.

Made in five sizes 80 to 1,500 bushels per hour. Available in several styles.

Be prepared to do a bigger and better shelling business. These shellers cost so little and do so much you can't afford to be without one.

Send for descriptive literature.

The Sidney Grain Machinery Co.
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*Complete Equipment for Grain Elevators
and Feed Mills*

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with Richardson Automatic Shipping Scales—because weighing is faster—human error is eliminated—labor is saved—and the shipper is paid for *all* he ships. These units use standard sealed test weights for weighing, are

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for full data on these and other money-saving weighing units for grain and feed elevators and mills. LEARN how quickly Richardson Automatic Scales pay for themselves.

chokeproof against foreign matter in grain, give *printed* record of weight, compensate themselves for variations in specific gravity or rate of flow, and handle all free-flowing grains at rates up to 4000 bushels per hour, depending on capacity of unit installed.

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Grain Shipping Books

Record of Cars Shipped facilitates keeping a complete record of each car of grain shipped from any station, or to any firm. It has the following column headings: Date Sold, Date Shipped, Car Number, Initials, To Whom Sold, Destination, Grain, Grade Sold, Their Inspection, Discount, Amount Freight, Our Weight Bushels, Destination Bushels, Over, Short, Price, Amount Freight, Other Charges, Remarks. Book contains 80 double pages of ledger paper, size 9½x12 inches, with spaces for recording 2,320 carloads. Well bound in heavy black pebble cloth with red keratol back and corners. Shipping weight, 2¼ lbs. Order Form 285. Price \$2.50, plus postage.

Sales, Shipments and Returns. Is designed to save time and prevent errors. The pages are used double; left hand pages are ruled for information regarding "Sales" and "Shipments"; right hand page for "Returns". Column headings provide spaces for complete records of each transaction, one line. Book contains 80 double pages of ledger paper, size 10½x16 inches, with 8-page index. Spaces for recording 2,200 cars. Bound in heavy canvas with keratol corners. Weight, 3¾ lbs. Order Form 14AA. Price \$3.35, plus postage.

Grain Shipping Ledger for keeping a complete record of 4,000 carloads. Facing pages are given to each firm to whom you ship and account is indexed. Book contains 80 double pages of ledger paper with 16-page index, size 10½x15½ inches, well bound with black cloth covers and keratol back and corners. Weight, 4 lbs. Order Form 24. Price, \$3.50, plus postage.

Shippers Record Book is designed to save labor in handling grain shipping accounts and gives a complete record of each car shipped. Its 80 double pages of ledger paper, size 9½x12 inches, provide spaces for 2,320 carloads. Wide columns provide for the complete record of all important facts of each shipment. Bound in heavy black cloth with keratol back and corners. Shipping weight, 2¼ lbs. Order Form 20. Price \$2.50, plus postage.

Grain & Feed Journals

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GRAIN & FEED JOURNALS

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332 S. La Salle St., Chicago, Ill., U.S.A.
Charles S. Clark, Manager

A merger of
GRAIN DEALERS JOURNAL
Established 1898

**AMERICAN ELEVATOR &
GRAIN TRADE**
Established 1882

THE GRAIN WORLD
Established 1928

PRICE CURRENT - GRAIN REPORTER
Established 1844

Published on the second and fourth Wednesdays of each month in the interests of better business methods for progressive wholesale dealers in grain, feed and field seeds. It is the champion of improved mechanical equipment for facilitating and expediting the handling, grinding and improving of grain, feeds and seeds.

SUBSCRIPTION RATES to United States, Canada and countries within the 8th Postal Zone, semi-monthly, one year, cash with order, \$2.00; single copy current issue, 25c.

To Foreign Countries, prepaid, one year, \$3.00.

THE ADVERTISING value of the Grain & Feed Journals Consolidated as a medium for reaching progressive grain, feed and field seed dealers and elevator operators is unquestioned.

Advertisements of meritorious grain elevator and feed grinding machinery and of responsible firms who seek to serve grain, feed and field seed dealers are solicited. We will not knowingly permit our pages to be used by irresponsible firms for advertising a fake or a swindle.

LETTERS on subjects of interest to those engaged in the grain, feed and field seed trades, news items, reports on crops, grain movements, new grain firms, new grain elevators, contemplated improvements, grain receipts, shipments, and cars leaking grain in transit, are always welcome. Let us hear from you.

QUERIES for grain trade information not found in the Journal are invited. The service is free.

CHICAGO, ILL., DECEMBER 27, 1939

THE SNOW has so completely covered Nebraska and the winter wheat belt of the Southwest that some enterprising farmers are drilling wheat in unplanted fields. They really expect the snow to melt and soak in, even though Mr. Wallace objects.

A YOUNG Nebraskan, Jim, the Penman, forged the name of a Lincoln dealer and bought over \$500 worth of corn, but has been apprehended and sentenced to eleven years in the penitentiary so he will not impose upon other grain dealers for a time, at least.

THE CANADIAN government wisely permits the Winnipeg grain market to function as usual altho engaged in a war abroad. If the Grain Exchange were closed, no one could be sure that the price of wheat was fair, as it always is under the system of free competition. Closing the Exchange would lead to price fixing by government and to suspicion by both producers and consumers that they were selling too cheap and buying too dear.

THE OPTIMISTIC prediction of the president of the Chicago Board of Trade published elsewhere in this number is most encouraging. Here's hoping that it all comes true!

GROUP MEETINGS of grain dealers have resulted in the correction of so many bad practices and poor methods, nearly every state ass'n now favors its members with evening district meetings, and the South Dakota Farmers Elevator Ass'n is planning such meetings for its members.

RAILROAD cars must not be used as storage warehouses if transportation is to be efficiently conducted. When 2,500 cars loaded with grain stand on track at New York waiting for ships to take away the grain it is time to take steps to co-ordinate the loading and unloading of grain cars, by placing specific embargoes.

THREE ACCIDENTS to men engaged in grain trade work are recorded in this number. One Indiana feed mill operator lost part of a hand while cleaning out a choke-up in the feed mixer. An Iowa helper fell from a defective ladder and died in the hospital. An Ohio salesman fell asleep at the wheel and was found dead in the ditch. Care, caution and foresight would have prevented each of these accidents.

LAND GRANT freight rates are unjust to the railroad companies in the western country where the density of traffic is too low to allow rates to be made as low as in Pennsylvania and New York. The railroads are not now earning, and for many years past have not earned, the return authorized by the Transportation Act. To cut the rate on government corn 16 cents per hundred pounds from Omaha to California is like hitting a man after he is down.

EVERY GRAIN elevator operator will find real pleasure in the careful perusal of President Sexauer's able address on "Today's Country Elevator Problems," which is published elsewhere in this number. His address found a most enthusiastic approval in the minds of every one of his hearers and we know that everyone really interested in the service rendered by the country elevators as well as the welfare of these grain marketing units will be more than delighted with Mr. Sexauer's address.

THE DEMAND for amendment of the Wage & Hour Law is increasing in force and, doubtless, Congress will change the provisions of the law and provide for a more reasonable enforcement. The arbitrary rulings of the labor commission has brought the law into disrepute with all classes of employers; in fact, some have retired from business rather than attempt to conduct a profitable business under the law. All business associations have been outspoken in their denouncement of unreasonable interpretations of the law and the regulations under it.

PROSECUTION, conviction and imprisonment under state laws penalizing the sale of property covered by liens without notifying the buyer that a lien exists, would soon provide examples deterring the criminally minded farmer from victimizing regular grain buyers by selling his mortgaged crop.

THE PROTEIN, fat and fiber content of a mixed feed is sometimes no clue to its real value. Two proteins or two fats of the same chemical analysis may have far different feeding value, which is one reason a proprietary mixed feed put out by a well informed manufacturer may be more nutritive than the home mixed variety.

THE RECENT meeting of the South Dakota Farmers Elevator Ass'n brought to light a real desire on the part of the Greater South Dakota Association for more intelligent selection of seed on the part of grain growers of that state. An appeal was made to the grain dealers to promote an active campaign to discourage the planting of mixed varieties of grain and the planting of more canes and sorghums which are adapted to South Dakota's soil and climate. If all the grain buyers of the state would join in an active campaign for better selection of seed and better cultivation, all growers and handlers would profit directly from larger crops of better quality.

WHILE grand opening days for the new elevators have always been most popular with the farmers, they have not always proved a financial success, because the sales program of the elevator was not planned for the efficient promotion of sales in advance of the opening. One Illinois elevator company recently digressed from the opening day celebration by tendering the farmers of the community a dinner and a movie show in a large auditorium. The farmers always welcome any innovation that will bring them helpful suggestions or information regarding their farm operations and, naturally, the more help given by the grain dealers, the greater is the good will attained.

THE GRAIN DEALERS of the southwest are providing larger and more efficient elevators than dealers of almost any other section of the country, due probably to the fact that they find profit in charging for storage, cleaning and treating grain. More large concrete elevators have been erected at country points in the southwest than anywhere else and the very fact that the dealers continue to erect these large fire-proof houses shows that it must be profitable. The insurance rate on a concrete elevator equipped with anti-friction bearings and lightning protection is so much lower than on the small wood houses at isolated points where fire protection is not given, it materially reduces the expense of handling the crop.

Oral Contracts Lead to Expensive Disputes

Oral contracts for grain for future delivery get country buyers into more trouble with their farmer patrons than almost any other loose practice. If the terms of the sale are placed in writing and a copy given to the farmer, the chance for misunderstandings and disputes are minimized. It is often difficult for the farmer to remember the terms of an oral contract if the market rises rapidly before he has made delivery of the grain sold. By placing the terms of the contract in writing and giving the farmer a check to apply on the contract, most courts and some juries insist that the terms of the contract must be enforced or proved to be fraudulent.

When the farmer hesitates to sign the written contract, buyer can improve contract's enforceability by giving grower check for \$25.00 on the face of which is written: "Part payment on purchase of 5,000 bushels No. 2 wheat." No country grain buyer desires to take advantage of any customer, because he knows if he indulges in such a practice, it would drive trade from his house, but for his own protection he should insist on every purchase contract being recorded in writing signed by both parties.

Call a Halt on Destruction of the Right to Contract

The annual report of the Commodity Exchange Administration not only seeks to obtain authority to conduct a thorough investigation of the futures trading system, but also authority to regulate trading in unregulated farm products. While the ambition of many of the administration's bureaus is to encourage, promote and assist in the revival of business, some departments are surely definitely striving to strangle business with regulations and unreasonable limitations.

The guiding motive of too many of our federal bureaucrats is the perpetual grasping for more power and more subalterns that the leaders may climb to higher compensations thru the employment of more assistants. If business ever is to recover, it must have real relief from regimentation by impractical dreamers.

When the Magna Charta was wrung from King John at Runnymede in 1215, it was thought that the right of private contract was assured for all time, and until within recent years this right has been respected by the rulers and law-makers, but recently the bureaucrats, swollen by the success of their regimentary tactics, have persisted in trying to deprive the individual citizen not only of the rights of contract, but the rights of property.

What is needed most now is an uprising that will put a permanent stop to many of the socialistic dreams being promoted by the federal autocrats.

Win Right to Transport Trainloads at Lower Rates

Railroads enthusiastically hail as momentous an 8 to 2 decision rendered by the Interstate Commerce Commission Dec. 14, reversing a long established policy by allowing railroads to reduce rates for movement of commodities in "trainload" lots.

The decision concerned blackstrap molasses, moving from New Orleans and Harvey, La., to Peoria and Pekin, Ill., alcohol plants, and allowed a rate of 15c per hundredweight on this commodity when moved in trainloads of not less than 1,800 tons, or 38½ tank carloads.

Chairman Joseph B. Eastman of the I. C. C., in delivering an opinion with the majority of the Commission, said: "The fact is . . . that certain other forms of transportation . . . give the shipper of large quantities a decided advantage over the shipper of quantities equivalent to a railroad carload."

This case, which had its inception when the Illinois Central published a rate of 14c per hundredweight of blackstrap molasses last May to regain business lost to barges, marks something of a crisis in the competition between different transportation agencies and is recognition by both railroads and the Commission that competition in transportation exists. It is recognition by the railroads that shippers demand they do something more than "wishful thinking" if they want to hold their transportation business; it is recognition by the Commission that too many restrictions strangle the railroads and prevent their fighting to hold their business.

Chairman Eastman's opinion demonstrates a new belief on the part of the Commission that railroads must be able to meet their competition and require help rather than hindrance from the Commission.

F. H. Law, freight traffic manager of the Illinois Central railroad, expressed the new spirit of the railroads when he declared the wish of the Illinois Central to be to price its services to produce the best results. The Law conviction admits in so many words that railroad rates are too high when they restrict traffic or cause traffic to be diverted.

Some fault can be found with the Commission's decision in the molasses case. Negotiations obviously will begin immediately between railroads and large shippers for movement of coal, oil, grain, and endless other products in trainloads. Big shippers, it is feared in some quarters, will have an advantage over small shippers.

But big shippers of grain will have to accumulate grain from small shippers as in the past. Less discrimination is likely to exist under trainload grain rates than under a transportation system that drives major buyers to unrestricted forms of

transportation to which all country grain dealers do not have access.

Why Continue Wasteful Agriculture?

If Richmond Robison, a Delavan, Ill., farmer, can produce the highest yield of corn in the state, three times in succession on the same ten acres of ground, why should the other farmers of the state be content to produce an average of only 51.5 bushels per acre?

Farmer Robison broke all yield records in Illinois by producing 155.41 bushels per acre this year to win the ten acre yield contest conducted by the state's enterprising Crop Improvement Ass'n and what is more, Mr. Robison has won this contest three years in succession on the same ten acres of ground.

As a reward for intelligent agriculture, it would seem that most of the other farmers of the state would hang their heads in shame, for why should they waste their land and time cultivating thirty acres planted to corn when only ten acres are actually needed?

Houston Has Two Dust Explosions

Houston has recently attempted to exceed all previous dust explosion records by having all of its elevators visited by an explosion of grain dust within a period of five weeks.

Last month the large grain elevator of the Houston Milling Co. was badly damaged by an explosion of grain dust, and on Dec. 18th the 3,500,000 bushel reinforced concrete elevator of the Port Commission was put out of commission by three distinct dust explosions in its cupola.

Our illustrations of this fine plant, both before and after the explosion, emphasize the necessity of providing every grain storehouse with modern equipment for controlling dust. Some of the grain handling plants erected in recent years are now clean and free from explosive grain dust and there seems to be no real reason why every elevator should not be protected against this destructive hazard.

The large initial investment combined with the money invested in grain calls for the most efficient equipment for correcting the grain dust hazard obtainable. Cheap, makeshift collectors of old style, cyclones and improperly proportioned wind trunking does not provide the protection needed to keep down the fine powder which is known to explode with most destructive force.

The advances made in dust control are far beyond the conception of the tin-smiths of former decades. The dust explosion hazard can be minimized and is being corrected in some plants. The safety of workmen and of the property in store demands more efficient dust collecting equipment for every plant, and when

the builders have provided adequate machinery for removing all dust it becomes the duty of the operators of the plant to see that the dust collecting devices are put to their intended use.

Discounting Machine Picked Corn

The machine corn pickers are greatly increasing the fire hazard of some country elevators as well as increasing the loss in shelling. Some buyers complain that machine picked corn not only contains an excessive amount of husks, but also large quantities of stalks.

Many dealers refuse to buy machine picked corn until farmers have cleaned out the husks and the stalks. Others will take in the corn at a heavy discount knowing full well that running the grain through corn cleaner will result in heavy loss because of the presence of husks and stalks.

No one claims the husks and the stalks can be marketed as corn so the elevator man must run his cleaner slowly and use a strong blast to remove the husks. This increases his handling cost and established his just claim for a wider margin, but unless he insists he will not get it.

The Bread Tax Bill

Secretary of Agriculture Wallace is always ready with two or six schemes for attracting and distracting the farmers of the land and is now delighted to promote the passage of the Bread Tax Bill introduced by Senator Wheeler, which would place such a heavy tax on flour as to discourage its use.

Congress will assemble early next week to discuss a lot of impractical legislation now pending, but 1940 is a presidential election year and all of the candidates for re-election are carefully considering new legislation and its effect on their own candidacy for re-election, so a little pressure brought by voters will be sure to kill the Wheeler Bill, Senate 2395, and help the wheat growers as well as

The Value of a Smile

It costs nothing but creates much.

It enriches those who receive it, without impoverishing those who give.

It creates happiness in the home, fosters Good Will in business, and is the countersign of friends.

It is rest to the weary, sunshine to the sad, and Nature's best antidote for trouble

It cannot be bought, borrowed or stolen, for it is something that is no earthly good to anyone until it is given away.

And if, in the hurry and rush of the Holiday season, you meet someone who is too weary to give you a smile—leave one of yours.

Esther C. Warner

all manufacturers and handlers of wheat and its products.

All members of Congress will give a ready ear to whatever voters may have to say, so that even the humble letter writer will be given full consideration during the final session of the 72nd Congress.

Known Causes of Elevator Fires

Disclosures of known causes of fires are helping alert elevator owners to prevent fires being started from similar causes. We find recorded in our news columns this number, one friction fire, one due to defective wiring, one starting in the motor, one from spontaneous combustion in damp hay, and another in the cob house. If the cause of every elevator fire was carefully determined and owners of other elevators given the benefit of the information, then all elevator owners would exercise greater caution in preventing fires from similar causes in their plants.

Everyone knows that property owners generally are anxious to reduce their fire losses and thereby reduce their fire insurance costs in mutual companies, but unless there is a general and successful campaign to prevent fires, all must share in the losses through their payment of fire insurance premiums.

By discovering the cause of each fire and publicising the information, other owners of elevator property become better informed on causes and voluntarily strive to correct the hazards of their plants, thereby reducing the fire losses and the cost of fire insurance.

Claims Against Government Agencies Collectible?

Grain elevator operators handling or storing grain for the C.C.C., the R.F.C., and the F.C.I.C. will be interested to know that the attorneys of the R.F.C. claim it is a federal government agency and that as such it is immune to a civil suit because it cannot be accused of negligence or malice.

The question assumes importance when we consider that if the claims of the R.F.C. attorneys are well founded it is unsafe for the businessmen of the country to have dealings with the untouchable agencies. The C.C.C. is offering contracts and agreements for storage and handling; but what are they worth if not enforceable in a court of law?

Two recent rulings by the court at Chicago indicate that the R.F.C. and the C.C.C. can not take refuge under the immunity enjoyed by the government.

Judge Ulysses S. Schwartz refused to quash a summons against the Home Owners Loan Corporation in a damage suit.

Judge W. W. Damron in the Cook County Superior Court said "The Reconstruction Finance Corporation has embarked on a private enterprise. There is no reason why it can not be sued along with any individual or corporation." The R.F.C. attorneys had asked dismissal of the suit on the ground that it is a federal government agency.

The R.F.C. owns a building and leases it to the operators of a tavern therein; and under the dramshop act of the state of Illinois making both proprietor and landlord liable in damages for injuries growing out of the sale of liquors one Uhlmann brought suit against the R.F.C.

for \$5,000 damages for injuries sustained when he was assaulted by a drunken patron of the tavern.

The R.F.C. has brot suit against many stockholders of defunct banks on their stock liability. It would be unfair and unreasonable to permit this Federal agency to sue yet give it immunity from suit.

Screenings

Syrup from sweet potatoes is being made by Dr. Lawrence E. Stout, professor of chemical engineering at Washington University, St. Louis, in a 20-gal. pilot plant at a cost, he claims, comparable with that of corn syrup.

C.C.C. corn of No. 1 grade when mixed with No. 2 as per instructions, will not grade out as inspected in according to the records of the state A.A.A. office; and to protect himself the handler might note on his No. 1 receipts "Mixed in bins with No. 2."

Research on the properties and composition of corn and wheat oils and chemical modification of vegetable oils will be conducted by Dr. Wm. J. Sparks, who has been appointed chief of the oil and protein division of the northern regional research laboratory at Peoria, Ill.

Chicago, Ill.—New package differentials were issued by the American Corn Millers Federation, effective Dec. 18. The new differentials consider sharp advances in cottons and jute. The 100 lb. cotton bag remains the basic package, with the 48 lb. cotton and 49 lb. paper, the same as basis.

The Winnipeg Grain Exchange since Dec. 1 has made it easier for individuals in the United States to trade without being hampered by the Exchange Control Board. If initial margins are deposited in U.S. dollars, the Exchange Control Board will provide U.S. dollars to pay profits or margins released.

The flour export subsidy rate has been reduced 10c per bbl. to \$1.10 a bbl. for Gulf and Atlantic ports, according to announcement by the marketing section of the U. S. Department of Agriculture. Other flour export rates remain unchanged. These are \$1.30 on west coast shipments to China, \$1.20 on Philippine Islands, and \$1.30 world-wide from the Pacific coast.

November trading in Chicago wheat futures aggregated 331,731,000 bus., against 259,618,000 in November, 1938. The volume was least on Nov. 25 at 5,279,000 bus., and highest Nov. 30 at 24,289,000. The volume increased in December, to 53,802,000 bus. Dec. 13. Corn future trading decreased from 139,253,000 bus. in November, 1938, to 93,669,000 bus. in November, 1939.

Oh, yes, we know a farmer in Wayne County, Indiana, a few miles south of us, who ten years ago had 500 acres of land. He now has near 1,140 acres, all well improved and paid for by farming. He buys a new automobile every year and it's a poor year when he doesn't buy an 80 acre farm. Yet, we are paying farmers for not farming. —Goodrich Bros. Co., P. E. Goodrich, pres. (Winchester, Ind.)

"Speaking of the weather" was literally true when scientists gathered at the weather and crops seminar Nov. 4, at Willard Hall, Kansas State College, Manhattan, Kan. And, as always, while much was said on the subject, and weather's vagaries were discussed from all angles, nothing was done about it. History of rain reporting was cited by the scientists and tree ring studies explained. Dr. C. G. Rossby, assistant chief for research in the Weather Buro, presented an interesting discussion of the possibility of long distance weather forecasting. He, however, deprecated the idea that the Weather Buro has any notion of making its forecasts for more than a week or ten days.

Asked—Answered

[Readers desiring trade information should send query for free publication here. The experience of brother dealers is most helpful. Replies to queries are solicited.]

Cob Burner Screen?

Grain & Feed Journals: Burning shucks will float on the air for some distance and constitute a fire hazard, calling for a screen to catch the embers. What kind of screen is best for this purpose?—C. Y.

Ans.: It is recommended by the Mill Mutual Fire Prevention Bureau that cob burners be provided with a wire screen at the top, of ½-inch wire mesh, and that the screen be built up as a cylinder or hemisphere above the top of the burner if it is to last any time in service. See illustrated story on page 347 of *Grain & Feed Journals Consolidated* for Oct. 25, 1939.

Application of Wage and Hour Law?

Grain & Feed Journals: We are operating a small flour mill, a table meal mill and a feed mill, buying about 90 per cent of our raw products locally in Tennessee. About 15 per cent of our total business is retailed here at our mill door, 50 per cent we wholesale in Tennessee and 35 per cent we wholesale in Alabama, which is about 50 miles south of Columbia, Tenn. On Oct. 24 we discontinued doing business in Alabama, losing about \$100,000 a year, because we could not compete with the mills in Alabama who are not working under the Wage and Hour Law, and we were. For us to put our plant on the Wage and Hour standards would increase our overhead four to five thousand dollars per year. It is impossible for us to get any information from the Government. Do we get any exemption under paragraph 24 of Interpretative Bulletin No. 6?—W. N. Butler & Co., Columbia, Tenn.

Ans.: Not being a service establishment or a retail business this flour mill is not entitled to the exemption under Interpretative Bulletin No. 6, but since a small part of the product of its employees crosses the state line it comes under the law as provided in Bulletin No. 5. Under the conditions stated the employees will be held to be engaged in the production of goods for (interstate) commerce.

Group Insurance for Continental Employees

The Continental Grain Co., grain merchant and elevator operator, has provided a large proportion of its employees in a number of localities throughout the United States and Canada with triple protection in the form of guaranteed retirement benefits, life insurance totaling approximately \$700,000, and sickness and accident benefits.

The plan is being administered by the Metropolitan Life Insurance Co. on a cooperative basis whereby the employer and employees share the cost.

Under the terms of the retirement feature, normal retirement will be at age 65, when payment of the life income will begin. This income, so far as it is based on service after the effective date, will be created by the purchase each year of an annuity for each enrolled employee. The retirement income will be the sum of these annuities, purchased by joint contributions of employer and employee, together with an additional annuity purchased by the company in recognition of past service for employees. The retirement phase of the program includes liberal provisions in event of an employee's death or termination of service, as well as provision for retirement before or after the normal retirement age. The retirement benefits are in addition to Federal Old Age Insurance Benefits.

Produce Malting Barley

Iowa's increasing importance as a malting barley state is indicated by the fact that during the 1938-39 marketing season, 2,331 carlots of Iowa-grown malting barley were shipped to principal markets, reports E. S. Dyas, Iowa State College agronomist.

Wisconsin's shipments totaled 2,924 carloads, Minnesota sent 1,761 carloads of malting barley to market, South Dakota 441, Michigan 170 and North Dakota 91.

To grade "malting," barley must be heavy, uniform in size, plump, well matured, mellow in texture, and of a straight run malting variety. Damage from disease, threshing, handling and storage often prevents barley from bringing a premium.

Driveway Observations

BY TRAVELER

FIFTEEN Ohio cooperative elevators have added livestock during recent months to the sidelines they handle. The purpose is to ship better classes of live stock to central market stock yards.

Complaint has it that packers send buyers to country sales barns to pick up first-class livestock at available prices below central market quotations. Second-rate and cull stock they permit to be shipped or trucked to be sold at central markets. This class of livestock then is the basis for market quotations.

By setting up livestock shipping facilities the elevators hope to expand the service they offer the farmers, at the same time encouraging better livestock prices in central markets by offering buyers first class livestock thru commission merchants.

Death of S. T. Beveridge

Stephen T. Beveridge, for many years engaged in the grain, seed and feed business as S. T. Beveridge & Co., died Dec. 15 at his home in Richmond, Va., after an illness of about two weeks.

He had been engaged in the grain and hay business formerly with Chas. L. Todd; and, with a brother, operated a wholesale grocery business under the firm name of Harvey Blair & Co.



St. Beveridge, Richmond, Va., Deceased.

Coming Conventions

Trade conventions are always worth while, as they afford live, progressive grain dealers a chance to meet other merchants from the same occupation. You can not afford to pass up these opportunities to cultivate friendly relations and profit by the experience and study of others.

Jan. 15. Colorado Grain Dealers Ass'n, Albany Hotel, Denver, Colo.

Jan. 22, 23. Northwest Retail Feed Ass'n, Mankato, Minn.

Jan. 23, 24, 25. Farmers Grain Dealers Ass'n of Iowa, Savery Hotel, Des Moines, Ia.

Jan. 29, 30. Indiana Grain Dealers Ass'n, Columbia Club, Indianapolis, Ind.

Feb. 6, 7, 8. Farmers Grain Dealers Ass'n of North Dakota, Bismarck, N. D.

Feb. 7, 8. Farmers Grain Dealers Ass'n of Indiana, Spencer Hotel, Marion, Ind.

Feb. 13, 14. Farmers Grain Dealers Ass'n of Illinois, Pere Marquette Hotel, Peoria, Ill.

Feb. 20, 21, 22. Farmers Elevator Ass'n of Minnesota, West Hotel, Minneapolis, Minn.

Feb. 21, 22. Pacific Northwest Feed Ass'n, New Washington Hotel, Seattle, Wash.

Feb. 22, 23. Ohio Farmers Grain Dealers Ass'n, Waldorf Hotel, Toledo, O.

Mar. 31, Apr. 1, 2, 3. Society of Grain Elevator Superintendents, Royal York Hotel, Toronto, Ont.

May 23. Grain, Feed and Millers Ass'n of Missouri, Hoxsey and Ben Bolt Hotels, Mexico, Mo.

May 23, 24. American Feed Manufacturers Ass'n, French Lick Springs Hotel, French Lick, Ind.

May 27, 28, 29. Pacific States Seedmen's Ass'n, St. Catherine Hotel, Santa Catalina Island.

June 16, 17, 18. Ohio Grain, Mill & Feed Dealers Ass'n, Neil House, Columbus, O.

June 20. Pennsylvania Millers & Feed Dealers Ass'n, Harrisburg, Pa.

Books Received

BROWN NECROSIS, is a leaflet of 14 pages describing the discoloration associated with rust infection in certain rust-resistant wheats, reprinted from the *Journal of Agricultural Research*, by E. S. McFadden of the Bureau of Plant Industry, Washington, D. C. Brown necrosis first appears in the form of brown blotches of various sizes on the culms, peduncles, glumes, and rachises. The blotches usually appear the second week after heading, and shortly thereafter change to a dark brown or nearly black.

CLASSIFICATION OF WHEAT VARIETIES.—Under the title "Diferenciacion de las Variedades de Trigo por sus Caracteristicas de Gluma y Grano" the Argentine National Grain and Elevator Commission has published a volume of 198 pages, profusely illustrated, classifying all wheat varieties grown in Argentina by the appearance of the berry and the inclosing glume. One plate shows the four standards of color established for the kernels and 7 colors for the glumes. By Agricultural Engineers Manuel F. Parera and Alfredo Palau, for the Comision Nacional de Granos y Elevadores, Buenos Aires, Argentina.

SOME COMMON INSECT ENEMIES OF STORED GRAIN—Pictures and words describe the life cycle, the destructive habits, and the identifying characteristics of the Angoumois grain moth, the Indian meal moth, the rice weevil, granary weevil, lesser grain borer, the Cadelle beetle, mealworms, saw-toothed grain beetle, confused flour beetle, flat grain beetle, and the carpet beetles. Also mentioned are several kinds of tiny wasps that attack and destroy stored-grain insects, particularly the larvae of the two grain moths. By M. D. Farrar and W. P. Flint; paper, 7 pages, Circular 497, University of Illinois College of Agriculture, Urbana, Ill.

Today's Country Elevator Problems

By E. H. SEXAUER, PRESIDENT Grain and Feed Dealers National Assn.
before Annual Convention Farmers Elevator Ass'n of S. D.

Today I am especially happy to bring you the official greetings of the Grain and Feed Dealers National Ass'n, and to wish your association continued success.

Those engaged in the grain trade have always felt it our responsibility to render to agriculture the most efficient marketing service possible. Your group has made valuable contributions to this service along with the private grain trade, and the keen competition between the two has produced a better marketing service than if either had dominated the field. I am glad to tell you that nowhere else in the world is grain handled from farm to processor, which is the grain trade's part in the distribution service, so efficiently and on such a narrow margin as it is in this country. This is something to keep in mind in this day of change, so that this unequaled service is not discarded or destroyed until it is certain that a better service can be provided, for when our marketing service is impaired it is a matter of real concern to the farmers of this country and the nation as a whole. I am sorry to inform you new conditions and situations exist which in my judgment seriously threaten to handicap if not to destroy this unexcelled service.

Neither trade or industry prospers unless agriculture prospers, and a prosperous agriculture needs above all else an efficient marketing service. The grain trade, recognizing this, has always favored a sound agricultural program and has endeavored to cooperate with the farm programs. We favor soil conservation, crop insurance, and recognize parity for agriculture as a sound objective. We recognize that production must conform to consumptive needs. The criticism of the national farm program offered by the grain trade is not of the program, but of the manner in which it is being administered. Believing as we do in the efficiency of the service of which we are a part, we believe that agriculture will be best served if the services and facilities which the grain trade have developed and which are recognized as being unusually efficient, are used, instead of being supplanted by other services and facilities which are untried and of doubtful value. The grain trade is rightfully expected to cooperate with the administrators of the Farm Act in making the objectives of the Act effective, and have cooperated, but what about the cooperation which we in return have received?

IS THERE JUSTIFICATION for the government to bring into existence 70 million bushels of additional storage at this time when there are many empty elevators both in terminals and in the country? Here in South Dakota at this time there are still millions of bushels of country elevator space available for storage of government corn. It is true this storage is frequently outside the corn producing area but these empty elevators are in territories where corn will eventually be needed. The storage earnings and handling charges which these elevators in the drought area could have earned if the government had used their facilities would be very helpful at this time. In many instances elevators now closed would have been kept open and rendered their communities needed services and in addition have kept many men employed.

The same situation prevails in terminal markets. Large terminal elevators have been recently closed and a considerable number of men thrown out of employment. A recent survey shows that there is 70 to 80 million bushels of empty bin space in Kansas City, Omaha, Minneapolis, Duluth and Superior, or enough space in these few markets to store all of the corn now in steel bins. These are storage facilities that the grain trade erected to carry surplus stocks.

The grain trade has always maintained an ever normal granary service, whether it was known by that name or not.

Consider the care which grain receives when placed in regular elevator storage as compared with storage in steel bins along some railroad siding. Grain when placed in elevator storage can be re-elevated when necessary, especially in the spring of the year during the germination period, and when the warm spring air comes in contact with the frozen kernels of corn and produces condensation. Unless the government experience is contrary to that of grain men, corn in these steel bins is going to get hot in the coming spring months.

Insect damage is another hazard to grain placed in improper storage. Reports are already coming in from all parts of the country of extensive damage to stored wheat and corn, and especially in the southwest. The Kansas City Star of Nov. 29th in a large type headline story says, "Since the first of the month 34% of the wheat inspected by Kansas State Inspection Department here has been musty or weevily, and the Missouri Department reported 28% * * * At Kansas City alone government inspectors in the last month have found it necessary to condemn as unfit for human consumption a total of 105 cars of wheat due to such damage." Loss of grade and quality of grain stored in the government's steel bins is the government's loss.

HANDLING CHARGES and rates for storage are, in the opinion of many of our elevator operators in the country, below actual cost, and this arbitrary low allowance has been thrust upon the country elevator operators without conference or an opportunity to be heard. The trade in its desire to cooperate in the national farm program and in many instances too not being in position to turn down even half a loaf, has invariably accepted these reductions. Now there is some intimation that further reductions, especially for wheat, may be demanded. Government agencies have apparently overlooked the fact that handling charges and overhead costs do not run uniform throughout the country and that the cost of handling grain in Iowa or Illinois where receipts run large, naturally is lower than in some of our northwest states where receipts may not average one-fourth as much. Instead of a uniform handling and storage rate for the entire United States, it seems much more reasonable that the charges and the rates prescribed by the various state Public Warehouse Commissions be recognized as reflecting the difference in the cost of services performed in different states.

These low government rates are a matter of vital concern to the farmers of this country. No business can long continue to operate at a loss. If government grain is handled at less than the cost of performing the service, then obviously the margins for handling the farmer's grain must be raised to pay that share of the overhead which government grain does not pay. This may not occur at once, but eventually that is what will happen and in the meantime many of the weaker grain companies will fail.

MUCH OF THE GOVERNMENT grain is now being handled entirely by newly created government agencies who have set up services which supplant the commission men. The commission merchants of the northwest have truly been the friends of the farmer elevator companies. They have in a great many instances helped them organize, have financed them, and have given them the benefit of their counsel and advice, in addition to a most excellent sales service. The commission merchants have offered their services to the government for handling shipments of government grain coming

to terminal markets, offering to supervise the details necessary to getting the grain in terminal storage, for a very low service charge. So far the commission merchants have been ignored and government agencies are performing the service which the commission men are so capably organized to perform. If the commission service of this country is destroyed or vitally crippled it will seriously affect the country grain trade. When we get to raising grain in volume again in South Dakota, we will need them, and I hope you will go on record urging that their services be used.

A MATTER TOO OF SERIOUS CONCERN to both producers and grain dealers, is the fact that government agencies are at this time able to undersell the regular grain dealers on corn moving to the Pacific Coast, because of the discriminatory freight rates which Land Grant Railroads grant to the government. These special Federal Land Grant Freight rates are about 50% less than the regular published tariffs or rates and give government agencies that much advantage when competing for corn business. In the case of corn moving from Sioux City and Omaha, to California the freight rate the government agencies pay is about 16½ cents per bushel less than the rate charged private shippers. Obviously the price which the grain trade bid producers for corn, is based on the price for which they can sell it, and this freight rate discrimination affects the prices that the producer receives. Believing that when the government engages in the grain business or any other business it should be subject to the same rules and conditions as private trade and industry. Our national association at its last convention in Minneapolis passed a resolution favoring the repeal of special Land Grant Freight Rates to the government as a matter of vital concern to both producers and grain dealers. If this unfavorable freight rate situation continues it may eventually mean that government agencies, because of their favorable discriminatory freight rates will handle most of the grain business. I urge that your convention adopt a resolution similar to that adopted by the National Association.

CONGRESS is considering a variety of farm relief plans. Some of these are of a price fixing nature. While a fixed price for grain at a figure which may be regarded as representing parity may seem attractive, experience has



E. H. Sexauer, Brookings, S. D., President
Grain & Feed Dealers Nat'l Ass'n.

Letters from the Trade

[The grain dealers' forum for the discussion of grain trade problems, practices and needed reforms or improvements. Dealers having anything to say of interest to members of the grain trade are urged to send it to the Journals for publication.]

Charges for Handling and Storage

Grain & Feed Journals: Some weeks ago C.C.C. and A.A.A. induced cotton warehouse firms to cut their storage charges in half. With attention now turning to grain, there is the thought that the country elevator storage and handling rates for corn and wheat are too far apart. (Corn is 7c maximum annual storage, 2c per bu. handling; wheat is 11c storage the first year, 12c the second, 3c handling.)

We believe the suggestion will be made to put wheat down on a level with corn. This again raises the question: Where *should* these charges be set to be fair to everyone?

We still approve the idea of a cost survey.—Ron Kennedy, sec'y, Western Grain & Feed Dealers Ass'n, Des Moines, Ia.

Watch for Musty, Weevily Wheat

Grain & Feed Journals: A high percentage of terminal receipts of wheat are being graded down as weevily, musty, sour, or sick.

Due to rain in some areas during the harvest season, wheat is coming out of storage, especially where it has not been properly handled, showing a high percentage of damage. Some of the musty odors are slight and not easily detected. Much of the wheat is carrying a dead germ, which also frequently escapes the attention of the buyer.

Watch purchases of wheat carefully. If you are in doubt about the soundness of wheat offered, it will pay to mail a sample to your nearest grain inspector. Such precaution may save you several dollars.—J. F. Moyer, sec'y, Kansas Grain, Feed & Seed Dealers Ass'n, Dodge City, Kan.

Soy Beans Leading All Advances

Grain & Feed Journals: Soy bean market is still the star performer. At the high point this week, December beans showed an advance of 58½¢ from the low made on Aug. 15th. Most of the growers who had \$1.00 beans for sale changed their minds when this price was reached. Lack of country offerings are not due to the fact that soy beans have all moved, but rather to the sensational advance in price in such a short time. Approximately 25 to 30 per cent of this year's record crop of beans are back on the farms and many country elevators are holding far more beans for their own account than in previous years. Soy bean meal and oil prices have not been able to keep up with the rapid advance in beans. Not a very rosy picture for processors at present.—Baldwin Elevator Co.

Oppose Certificate Plan

Grain & Feed Journals: The Wheeler Bill, S. 2395, probably will be the basis for debate in Congress on the Certificate Plan, another name for the old processing tax. Secretary Wallace's speeches both in Oklahoma City and Chicago recently have featured this legislation. Elsewhere others of his key men have made talks along the same line. They frankly admit, in talking to farmer gatherings, that the day of direct payments to farm aid from the public funds is over, that if aid is to continue, some method of raising this money will have to be found.

It is thought from the way this is being taken to the voters there is strong opposition, it is questioned that the Dept. of Agriculture has the co-operation of the President or the

Treasury in the effort to get this law passed. Opposition is showing in the consuming East and as near home as the Texas newspapers both in editorials and cartoons. From here it looks like a fight.

We should do our bit by letting our Congressmen know where we stand before they go back to Washington right after Christmas. Let's get busy!—A. G. Campbell, sec'y, Texas Grain & Feed Dealers Ass'n, Ft. Worth, Texas.

From Abroad

The Dutch government is reported to have purchased five or six cargoes of corn in the U. S., for shipment thru Albany, and thru Gulf ports.

The Argentine Wheat Board sold 9,000,000 bus. of wheat to England in November at 47c f.o.b., and 3,674,000 bus. at 51c. Since then the price has gone up to 61½c. The increase in price diverted much of the buying to Canada.

Australia's second official wheat crop estimate is 182,568,000 bus. from 13,500,000 acres, an increase of 2,500,000 bus. from the preliminary estimate, compared with 154,000,000 bus. a year ago. Private estimators place Australia's carryover old wheat at 15,000,000 bus., suggesting total stocks of 197,568,000 bus., of which Australia needs 55,000,000 bus. for food, seed and feed requirements.

London, Eng.—W. S. Morrison, Minister of Food, speaking before the House of Commons, expressed intent to ask parliament to amend the Wheat Act to increase the standard or guaranteed price for English grown wheat from 45s to 49s 6d per qr. of 504 lbs. (equal to \$1.32 per bu.) for the current cereal year. The increase would affect deficiency payments to English farmers, the wheat flour levy, and the price of bread.

Finland has borrowed \$10,000,000 to spend in the United States. Finnish statistics show that Finland last year bought large quantities of 8 of the 15 products listed by the U. S. Federal Surplus Commodities Corp. for relief distribution thru the food stamp plan. Warren Lee Pierson, president of the Export-Import Bank, who negotiated the loan, granted Finland by the bank and the R.F.C., said the loan will maintain normal purchase.

Rust in Australia has reduced prospects and given rise to recent pessimistic reports from private observers. Heavy frosts in the Argentine have given cause for general concern for a crop that was none too rosy at the best. Private reports from the United States winter wheat belt indicate a condition on Dec. 1st that is the lowest in history, and lastly, the moisture situation in Western Canada is poor.—McCabe Bros. Grain Co.

The Argentine government will have 75,000,000 bus. of old wheat left on hand Dec. 31, according to Broomhall, on which it may realize sufficient profit to wipe out the heavy deficit of the 1939 season. Old wheat will be sold to Argentine millers next year instead of being exported. Yields are disappointing as the current harvest spreads, and the new wheat surplus is figured at only 110,000,000 bus., of which only 80,000,000 will be available for export.

The F.S.C.C. held 4,198,237 bus. wheat Dec. 14.

proven that the consequences are invariably disastrous. If we were to have a fixed price, there would be no incentive for anyone to hold grain. The miller, the terminal elevator operator and the country grain dealer would only buy grain as they in turn found buyers, and farmers would find themselves without a market, which is now always available to them. This situation actually occurred in France where prices on wheat were fixed for a few years and resulted in more illegal trading in wheat before the act was repealed than there was bootlegging in the United States in prohibition days. Many farmers are not in position to hold their wheat until May or June. Fixed prices would favor the large scale farmer who, operating with power equipment and assured of a small margin of profit, would tremendously increase his operations. It would encourage corporation farming to the disadvantage of the family sized farm. Handling charges too would naturally be fixed for both handlers and processors of grain. Regimentation of all branches of the great agricultural industry would be sure to follow. These and other proposals now before Congress and the manner in which the present law is being administered, are matters of vital concern not only to the country grain dealer but to farmers as well.

AGRICULTURE AND BUSINESS are concerned in the present day trend of the government to take over the functions now efficiently performed by the regular grain trade. I do not believe that there is any evidence to indicate that politicians and government men are any more efficient, any more conscientious, or any more honest than individuals in the regular trade, nor that they can render a better or a more economical service. If you men believe in your industry, may I urge that you appoint a committee to study these national grain problems that are apt to effect your operations and the service which you can render your patrons, and that you urge other state associations, both cooperative and private, to do likewise.

The Grain & Feed Dealers National Ass'n has such a committee. We also have a representative who spends a considerable part of his time in Washington gathering information. This task is too great for our association to handle alone. If the Farmers Elevator groups should appoint a national committee to study national grain problems, our association will be most happy to cooperate on matters in which we have a common interest. I urge that you give this your earnest consideration.

All groups interested in agriculture should unite in keeping services which are efficient and until we are sure that a better method is offered.

Experimental Study Proves Grain Elevator Storage Efficient

Wheat kept best in a bin with a hopper bottom and an elevator to keep temperatures constant by circulating the grain, in experiments by the engineering division of the Illinois Agricultural Experiment Station.

Two carloads of wheat were used in the storage experiment that ran from July 1 to the end of September. The first tested 16% moisture, the second 15%.

No advantage followed preheating the air which was to be forced into the bins thru the wheat. Cross-flue ventilation had some advantages, but was not as effective as forced ventilation. Bins made of rigid insulation board had no advantages and some faults.

This experiment, which developed no new information on wheat storage for elevator operators, utilized eight bins 8x10 ft. in floor size, and 10 ft. high, mounted on steel trucks and tracks so that they could be conveniently weighed. The bins were prepared to give storage results in metal and wood bins, metal-lined bins, and rigid insulation board bins.

Separate Feed Plant Avoids Service Confusion

Because it is located apart from the grain elevator, with plenty of room for turning trucks around it, the new feed plant of the Russell Grain Co., at Hilliards, O., is able to give quick grinding and mixing service to farmers without congestion and consequent confusion.

The new 26x60 ft. frame, shiplapped feed plant is painted white; its bin structure and cupola, iron-clad. The plant sets on a concrete foundation over a full basement.

In the basement is a Jay-Bee hammer mill with direct connected 50 h.p. motor. Over the hammer mill is a crusher and feeder into which grain and ear corn pours from a 1,500 lb. capacity hopper. The hammer mill is fitted with an ammeter, so that it may be run at full capacity, yet not be overloaded. This assures economical operation.

The butterfly valve at the bottom of the meal collector, which sets on the roof of the warehouse part of the building, directs ground grains either thru a sacking spout or into a one-ton Sidney vertical feed mixer, from which completely mixed feeds are sacked. A second feed mixer is located ahead of a molasses feed mixer, and works in conjunction with the latter. This, too, draws ground grains from the meal collector.

The molasses mixer uses a hot system. A 10,000 gal. steel storage tank in the basement supplies cold molasses to a pump, which passes it thru electrically heated hot water tank coils that hold 100 lbs. of molasses and bring it to a predetermined temperature before passing it into the molasses mixing unit. When customers want bulk molasses a special hose passes the molasses direct into drums, without removing them from the truck.

A suspended Singer bag closing machine follows an overhead track in front of the molasses mixer, both feed mixers, the direct sacker, and a 2 ton dormant scale. Controls for these machines are so located as to be manipulated by the operator's left hand.

Three overhead bins in the structure hold 1,600 bus. of grain for grinding. These are filled from the outside, where grain is dumped into a small hopper at the level of the driveway floor, then elevated thru a 4x10 inch leg.

The building has room to store 100 tons of mixed feeds and feed ingredients within easy reach of the mill operators. On the south side of the structure are two loading doors, protected by a canopy. Other sliding doors are at each end and on the track side of the structure, so that cars can be unloaded, and several trucks can be loaded at the same time.

A two-way loud-speaking system connects the office, the scales, the elevator and the feed plant, so that operators in each building can communicate with operators in the others without leaving their posts. This system promotes efficiency, eliminates confused running back and forth.

Owner and operator of the Russell Grain Co. and its extensive business in grain, coal, feed and seed, is Bliss Russell. Associated with him in the enterprise are his son, John Russell, and William Wilgus.

A. C. Schroeder, of Sarpy County, Nebraska, was awarded the state corn growing championship for a yield of 118.2 bus. per acre, the highest ever known in Nebraska. He used hybrid seed, but no manure or commercial fertilizer. The ground had been in pasture a number of years.

The Horse and Mule Ass'n of America at the annual meeting Dec. 6 at Chicago elected Louis E. Stoddard, New York, pres.; Grant Good, Ogden, Ia., 1st vice pres.; W. H. Weeks, Kansas City, Mo., 2nd vice pres.; F. M. Holmes, New Britain, Conn., treas.; Wayne Dinsmore, Chicago, continuing as secretary.

Taxation for Farm Benefits

By HENRY A. WALLACE, Sec'y of Agriculture, before American Farm Bureau Federation.

Proposals to re-enact the processing taxes on a wide range of farm crops (tho not on livestock) have been repeatedly made since 1936. I myself have urged such taxes, especially for wheat and cotton. But, except for a processing tax now in effect on sugar, no such taxes have been re-enacted by Congress.

The Certificate Plan.—Within the last few months, one feature of the old domestic allotment plan, originally put forward a dozen years ago, has been revived as a proposed means of increasing the farmers' return on the domestically consumed portion of his crop. This is known as the income certificate plan. Under this plan any dealer handling a farm product would be required to buy certificates to cover the amount of the product he desired to sell in the United States. Thus the price to the farmer on this portion of his crop would be increased by the amount of the certificate.

This plan has the advantage over the processing tax in that the money would not go through the United States Treasury at all. It would apparently be especially well suited to such export commodities as cotton, wheat, and rice. But it would not work the same way if applied to corn. Like the old corn and hog processing taxes, it would tend to come out of the farmer's price.

Manufacturers' Sales Tax.—Another suggested source of revenue for the financing of parity payments is a manufacturers' sales tax on luxuries. Assuming that Congress would enact such a tax, there is the drawback that there would almost certainly be a general scramble for such funds. It might be difficult to earmark them for the producers of a few farm commodities, or even for agriculture in general. It is probable that a tax on luxuries would not raise any great amount of money.

In connection with all these tax proposals, there is a tendency in some quarters to label them as "regressive," that is, as bearing down too hard on consumers. But the folks who object to such taxes as "regressive" do not realize that when the farm price of hogs goes from 3 cents to 13 cents a pound, as it has in the past, the effect on consumers is much more burdensome than any reasonable tax com-

bined with a program to stabilize supply and price.

Must Discriminate Against Non-Conformist.—To keep participation in the corn program at a high level, the co-operating farmer must receive sufficient advantage over the non-cooperator, either in the form of payments or in loans above the market, to make up for his acreage sacrifices. In 1939, such a differential was created by the combined conservation and parity payment. Another parity payment will be added to the conservation payment in 1940.

The corn plan can never be put on a firm, continuing basis until some method is provided to make sure of high participation in the acreage program so as to back up the corn loan. Perhaps, if the corn and hog producers really wanted it, the income certificate plan could be used to serve as a differential between co-operators and non co-operators, just as the old corn and hog processing taxes did. Or perhaps some tax, such as a manufacturers' sales tax on luxuries, could be made available to the corn producers.

Price Fixing Impracticable.—If the government were given enough control over both production and marketing of farm products, price-fixing might be made to work. But the task of administering such a plan would be far more complex than many people imagine. It would be necessary, for example, to set up machinery for determining allotments and quotas, just as we have now, in order to determine what percentage of each farmer's crop could be sold at a fixed price and what percentage at a world price. In addition, there would have to be elaborate control at the selling end, which would involve far more regimentation of business men than farmers have voted on themselves in the marketing quota phases of the present program. If the fixed prices did not stay fixed, the government might have to take over the marketing machinery.

Price fixing is not the easy and painless way out that some folks have tried to make it seem.

The Union Stock Yards and Transit Co., of Chicago, is subject to regulation of its rates for loading and unloading live stock by the Interstate Commerce Commission, under a decision Dec. 4 by the Supreme Court of the United States, holding it to be a common carrier.



Russell Grain Co.'s new feed grinding and mixing plant at Hilliards, O.

Crop Reports

Reports on the acreage, condition and yield of grain and field seeds are always welcome.

McCook, Neb., Dec. 13.—McCook went into its 112th day of drouth, with only .27 of an inch moisture recorded in that period.

Minneapolis, Minn.—The dry weather continues thruout the Northwest. From the southern border of South Dakota almost to the Canadian line, it is nearly bone dry and there have been some dust storms the past week with dirt flying in the air as far as one can see.—Archer-Daniels-Midland Co.

Oklahoma City, Okla.—The Oklahoma state board of agriculture estimated Dec. 1 condition of the state's wheat crop at 46 per cent of normal, the lowest for that date on record. On the basis of present condition, indicated yield per acre is 7.3 bus. an acre, compared with the previous low record of 8 bus. in 1938, when the total crops was 27½ million bus.

Argentine's Flax Crop

Every one had expected that the first official forecast of flaxseed production in the Argentine would be low but the actuality far exceeded the expectation. The production figure issued today of 49,213,000 bus. (1,250,000 tons) is fourteen and a half million bus. less than the first estimate of last year and over six million bus. less than the final estimate of last year. The first acreage report for Argentina this year was 7,660,000. The present government report indicates that 1,556,730 acres have been abandoned.—Archer-Daniels-Midland Co.

Government Crop Report

Washington, D. C.—The Crop Reporting Board on Dec. 19 reported the winter wheat acreage at 45,014,000 compared with the revised estimate of 46,364,000 acres planted in 1938, making this year's area the smallest since 1933-34. Of the 1938 sown acreage, 18.5% was abandoned, leaving 37,802,000 acres for harvest this year.

Acreage of rye for all purposes is reported at 5,640,000 acres, or 11.5% decrease as compared with last year.

Condition of winter wheat Dec. 1 was 55% of normal compared with 72 a year ago, 76 two years ago, and a 10-year (1927-36) December average of 80. Rye condition was 64, against 76 a year ago, 74 two years ago and 79 the 10-year average. The lowest December wheat condition in recent years was 68.9 in 1932.

The indicated production of winter wheat in 1940 is 399,000,000 bus., against 563,000,000 bus. in 1939.

Canadian Amber Durum Wheat Quality

J. Ansel Anderson summarizes his report on the quality of Canadian amber durum wheat for the Grain Research Laboratory of the Board of Grain Commissioners for Canada, at Winnipeg, as follows:

"The 1939 Canadian amber durum wheat crop is estimated at approximately 11,250,000 bus., which is approximately half that harvested in 1938 and considerably less than that of 1937. This progressive decrease is undoubtedly due to the seeding of rust-resistant hard red spring wheats in Manitoba and Saskatchewan areas which normally produce durum wheat.

"Of the total cars inspected, 65% graded No. 2 C.W., and over 90% entered the first three grades. 'Black-point' or 'smudge' infection is not prevalent this year, and the chief degrading factor is the presence of 'pink-colored,' drouth affected kernels.

"Compared with the previous crop, the 1939 amber durum grades are somewhat lower in bushel weight and, in general, approximately equal in protein content, slightly lower in carotene content, and distinctly superior in macaroni quality. Between the first two grades, this year, there is very little difference, but No. 3 C.W. is somewhat inferior in all these quality characteristics."

Estimated Flax Production Raised Again

Minneapolis, Minn., Dec. 22.—The United States Department of Agriculture astonished every one by raising its estimated flax production from the Nov. 1st figure of 17,439,000 bus. to 20,330,000 bus. This is the final estimate and if the Government's figure is correct (some private estimators feel that it is too high), it represents the largest crop of flax raised in this country since 1930. The acreage estimate has also been raised from 2,034,000 to 2,284,000. The yield is 8.9 bushels per acre. The principal in-

crease in the Government estimate was in Minnesota where 1,400,000 bus. have been added and 91,000 acres. Similarly, in South Dakota the increase was 348,000 bus. and 53,000 acres; in North Dakota, 265,000 bus. and 53,000 acres; and in Iowa, 525,000 bus. and 50,000 acres. The remaining additions were made in states outside of the Northwest. Figuring that about half a million bushels will be marketed during December, we estimate that 75% of the Government's production figure has been disposed of through marketing channels. Figuring that 10% of the total is kept back in the country for seed leaves 15%, or three million bushels, still to be marketed. We consider that this figure is a trifle high.—Archer-Daniels-Midland Co.

United States Grain Crops for 54 Years

Estimates of the U. S. Department of Agriculture of wheat, corn, oats, rye and barley crops of the United States from 1886 to 1939, in bushels, are as follows:

	Wheat	Wheat	Wheat	Corn,	Oats	Rye	Barley
	Winter	Spring	All	All			
1886...			513,540,000	1,782,767,000	682,312,000	23,854,000	73,503,000
1887...			490,761,000	1,604,549,000	696,175,000	22,548,000	72,395,000
1888...			423,867,000	2,250,632,000	773,139,000	28,417,000	75,980,000
1889...			504,370,000	2,294,289,000	831,047,000	29,624,000	80,790,000
1890...			449,042,000	1,650,446,000	609,122,000	26,378,000	69,880,000
1891...			677,543,000	2,335,804,000	836,789,000	29,541,000	94,160,000
1892...			611,854,000	1,897,412,000	721,824,000	28,718,000	95,170,000
1893...			505,795,000	1,900,401,000	707,129,000	26,700,000	87,109,000
1894...			541,873,000	1,615,016,000	750,009,000	26,758,000	74,211,000
1895...			542,119,000	2,534,762,000	924,858,000	31,636,000	104,475,000
1896...			522,963,000	2,671,048,000	774,929,000	29,858,000	97,479,000
1897...			606,202,000	2,287,628,000	829,525,000	31,137,000	102,575,000
1898...			768,148,000	2,351,323,000	842,205,000	29,062,000	98,174,000
1899...			655,143,000	2,645,796,000	937,173,000	26,001,000	118,161,000
1900...			599,315,000	2,661,978,000	945,483,000	27,413,000	96,568,000
1901...			762,546,000	1,715,752,000	799,812,000	30,773,000	123,800,000
1902...			686,959,000	2,773,954,000	1,076,899,000	33,877,000	146,207,000
1903...			663,115,000	2,515,093,000	885,469,000	28,932,000	149,335,000
1904...			555,571,000	2,686,624,000	1,011,556,000	28,461,000	166,103,000
1905...			706,026,000	2,954,148,000	1,104,395,000	31,173,000	171,639,000
1906...			740,509,000	3,032,910,000	1,022,715,000	29,609,000	179,148,000
1907...			628,764,000	2,613,797,000	801,144,000	28,247,000	150,584,000
1908...			642,818,000	2,566,742,000	829,308,000	28,650,000	170,780,000
1909...	417,796,000	266,131,000	683,927,000	2,611,157,000	1,013,909,000	30,083,000	173,069,000
1910...	429,875,000	195,601,000	625,476,000	2,852,794,000	1,106,162,000	29,098,000	142,419,000
1911...	428,740,000	189,426,000	618,166,000	2,474,635,000	885,527,000	31,398,000	145,074,000
1912...	402,703,000	327,308,000	730,011,000	2,947,842,000	1,353,273,000	37,911,000	196,927,000
1913...	501,239,000	249,862,000	751,101,000	2,272,540,000	1,039,131,000	40,390,000	158,820,000
1914...	670,945,000	226,542,000	897,487,000	2,523,750,000	1,066,328,000	42,120,000	177,712,000
1915...	640,565,000	368,072,000	1,008,637,000	2,829,044,000	1,435,270,000	46,751,000	206,976,000
1916...	456,118,000	178,454,000	634,572,000	2,425,206,000	1,138,969,000	43,089,000	159,157,000
1917...	389,956,000	229,834,000	619,790,000	2,908,242,000	1,442,519,000	60,321,000	182,209,000
1918...	556,506,000	347,624,000	904,130,000	2,441,249,000	1,428,611,000	83,421,000	225,067,000
1919...	748,460,000	203,637,000	952,097,000	2,678,541,000	1,106,603,000	78,659,000	131,086,000
1920...	613,227,000	230,050,000	843,277,000	3,070,604,000	1,444,291,000	61,915,000	171,042,000
1921...	602,793,000	216,171,000	818,964,000	2,928,442,000	1,045,270,000	61,023,000	132,702,000
1922...	571,459,000	275,190,000	846,649,000	2,707,306,000	1,147,905,000	100,986,000	152,908,000
1923...	555,299,000	204,183,000	759,482,000	2,875,292,000	1,227,184,000	55,961,000	158,994,000
1924...	571,558,000	268,533,000	840,091,000	2,298,071,000	1,424,422,000	59,076,000	167,314,000
1925...	401,116,000	268,026,000	669,142,000	2,853,083,000	1,410,336,000	42,779,000	192,779,000
1926...	631,950,000	201,594,000	833,544,000	2,574,511,000	1,141,941,000	35,361,000	164,467,000
1927...	547,666,000	327,067,000	874,733,000	2,677,671,000	1,093,097,000	52,111,000	240,057,000
1928...	577,417,000	335,544,000	912,961,000	2,714,535,000	1,313,977,000	38,591,000	329,625,000
1929...	586,055,000	236,125,000	822,180,000	2,535,546,000	1,118,414,000	35,482,000	290,242,000
1930...	631,205,000	258,497,000	889,702,000	2,065,273,000	1,277,379,000	46,275,000	303,752,000
1931...	817,962,000	114,259,000	932,221,000	2,588,509,000	1,126,913,000	32,290,000	198,543,000
1932...	478,291,000	267,497,000	745,788,000	2,906,873,000	1,248,548,000	40,639,000	302,042,000
1933...	350,792,000	178,183,000	528,975,000	2,351,658,000	731,500,000	21,150,000	155,825,000
1934...	405,552,000	91,377,000	496,929,000	1,377,126,000	525,889,000	16,045,000	118,348,000
1935...	465,319,000	161,025,000	626,344,000	2,296,669,000	1,194,902,000	58,597,000	285,774,000
1936...	519,013,000	107,448,000	626,461,000	1,524,317,000	789,100,000	25,554,000	147,452,000
1937...	685,102,000	188,891,000	873,993,000	2,644,995,000	1,146,258,000	49,449,000	219,635,000
1938...	686,637,000	244,164,000	930,801,000	2,542,288,000	1,053,839,000	55,089,000	252,139,000
1939...	563,431,000	191,540,000	754,971,000	2,619,137,000	937,215,000	39,249,000	276,298,000

Daily Closing Prices

The daily closing prices for wheat, corn, oats, rye, barley and soybeans for May delivery at the following markets for the two past weeks have been as follows:

	Option		Wheat												Corn		Oats		Rye		Barley		Soybeans	
	High	Low	Dec. 13	Dec. 14	Dec. 15	Dec. 16	Dec. 18	Dec. 19	Dec. 20	Dec. 21	Dec. 22	Dec. 23	Dec. 26											
Chicago	109¾	63¾	99¾	99¾	101¾	105	109	106	103¾	105¾	103	102¾	103¼											
Winnipeg*	92½	54¾	87¾	86	87¼	89	91¼	90¼	89¼	89½	87¼	87¼	87¼											
Kansas City	104¼	58¾	95	94¾	96¾	99¾	104½	101	98¾	100¼	97¾	96¾	97¾											
Minneapolis	107	67	98¾	97¾	99¼	102½	107	103	100½	102¼	100¾	100¾	101¾											
Duluth, durum	99½	61½	92	91¾	91¾	95	99¾	94½	91½	92¾	90¾	92¾	93¾											
Milwaukee	109½	64¼	99¾	99¾	101½	105¼	109	106¼	103¾	105¾	103¾	102¼	103¼											
Chicago	63½	42	57¼	56¼	56¾	58¼	59½	59½	58½	58	57½	57½	58½											
Kansas City	58¾	42¾	54¾	53½	54½	55½	56¾	56¾	55¾	56	55½	55½	56¾											
Milwaukee	63¾	44½	57¾	56¾	57	58¼	59¾	59¾	58½	58¾	57¾	57½	58¾											
Chicago	40	27½	39	38¼	38¾	39	39¼	39	38¾	38¾	38¾	38¾	38¾											
Winnipeg*	45¾	27½	38½	37¼	37¾	38	38¾	40½	39¾	39¾	39½	39½	39½											
Minneapolis	37¾	27	35¾	34¾	35¾	35¾	35¾	35½	35	35½	34¾	34¾	34¾											
Milwaukee	39¾	28½	39	38¼	38¾	39	39¼	39	38¾	38¾	38½	38¾	38¾											
Chicago	77¾	43¾	68¾	68¾	70¾	73¾	76½	73¾	70½	72½	72½	73¾	77½											
Minneapolis	71¾	41¾	63	62¾	64¾	68	71	67½	64¾	66¾	66¾	67¾	71½											
Winnipeg*	82	40	75¾	76	75¾	77¼	80¾	79¾	78	78¼	78¾	79¾	79¾											
Chicago	48	37½	44¼	42¾	44¼	45½	46½	44¼	43¾	43¾	43	43¾	44											
Winnipeg*	54	33¾	51½	51¼	51½	52¾	53¾	53	52¼	52	57¾	57¾	57¾											
Chicago	131½	67	114	116	119	123½	130½	122½	115	117	116	119	123											

Grain Movement

Reports on the movement of grain from farm to country elevator and movement from interior points are always welcome.

Dauphin, Man.—During August and September the Dauphin Co-operative Ass'n received 455,691 bus. of grain. On Aug. 24th, 276 trucks dumped 39,000 bus. into its receiving sink and 28,000 bus. were loaded into cars. Business was booming.

Milwaukee, Wis.—Receipts and shipments of grain during the year 1939 expressed in bushels, were as follows: Receipts, wheat, 520,600; barley, 359,707; shipments, wheat, 1,556,794; corn, 1,133,850.—H. A. Plumb, sec'y, Milwaukee Grain & Stock Exchange.

Chicago, Ill.—Shipments of grain and soybeans by lake during the year 1939, expressed in bushels, as compared with 1938, expressed in parentheses, were as follows: Wheat, 9,487,000 (12,654,000); corn, 32,535,000 (81,121,000); oats, 449,000 (1,491,000); rye, (91,000); barley,

(174,000); soybeans, 10,467,000 (2,305,000).—Lyman C. West, statistician, Board of Trade.

Philadelphia, Pa.—Receipts and shipments of grain in November compared with November, 1938, in parentheses, expressed in bushels, were as follows: Receipts, wheat, 3,160,670 (122,477); corn, 915,816 (282,034); oats, 210,062 (45,094); rye, 4,674 (744); barley, 3,159 (....); shipments, wheat, 684,537 (403,632); corn, 75,356 (113,884); oats, 438,854 (43,534); rye, 2,142 (8,649); barley, 1,825 (1,333).—Philadelphia Commercial Exchange.

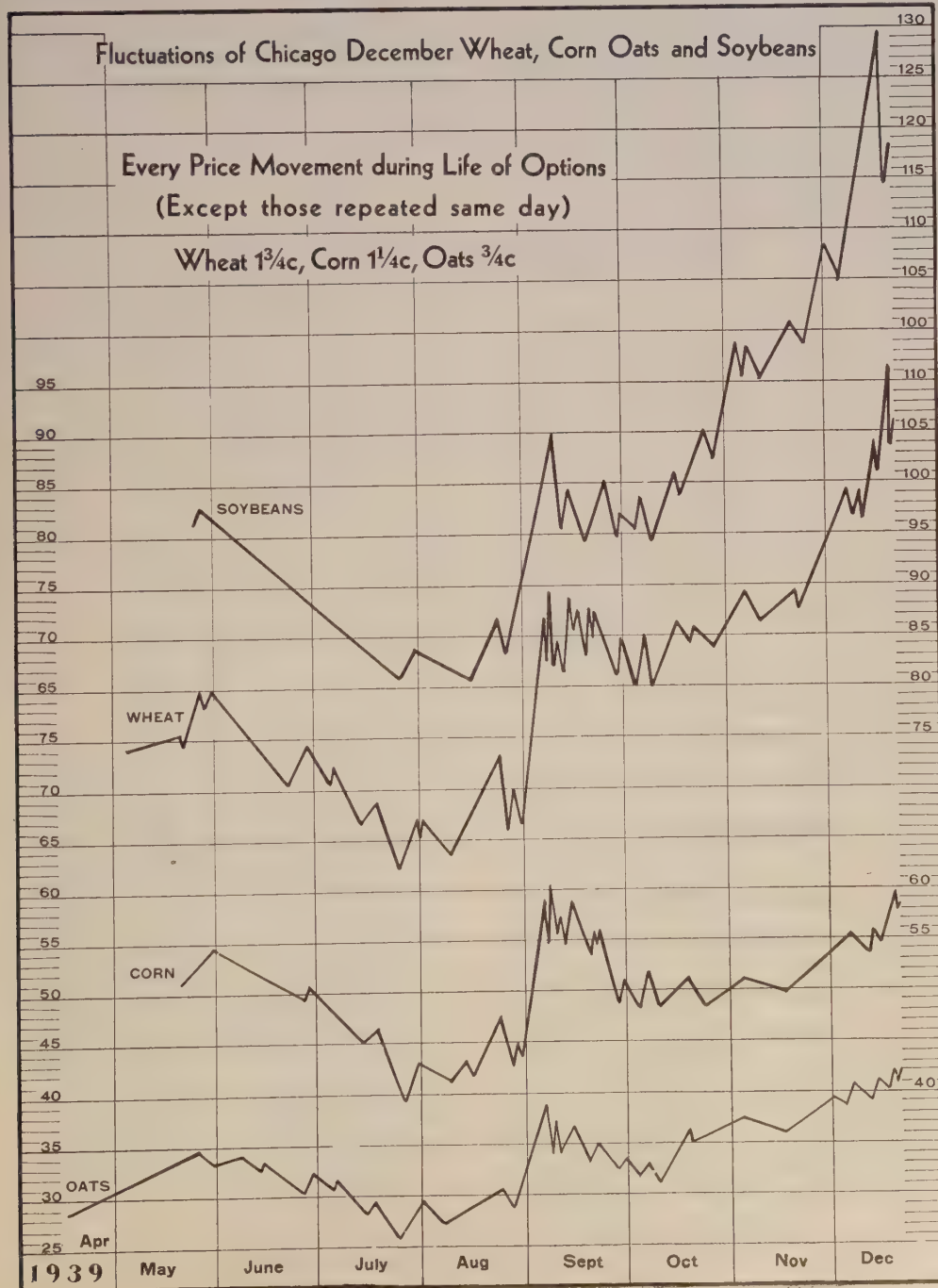
Ottawa, Ont., Dec. 21.—Canadian wheat in store for the week ending Dec. 15 was reported as 351,410,774 bus., compared with 170,668,870 bus. for the week of Dec. 16, 1938. The stocks of 351,410,774 bus. include 18,668,468 bus. of Durum wheat. Marketings in the three Prairie Provinces for the twenty weeks from Aug. 1, 1939, to Dec. 15, 1939, and the like period in 1938, were 357,491,999 and 251,228,725 bus.—R. H. Coats, Dominion Statistician.

Indianapolis, Ind.—Receipts and shipments of grain for November as compared to November, 1938, expressed in bushels, 1938 shown in parentheses, are as follows: Receipts, wheat, 411,000 (96,000); corn, 2,542,000 (2,276,000); oats, 168,000 (176,000); rye, 19,500 (46,500); barley (4,500); soybeans, 252,000 (246,000); shipments, wheat, 304,000 (290,000); corn, 1,825,000 (1,471,000);

oats, 246,000 (392,000); rye, 34,500 (63,000); barley, (1,500); soybeans, 217,000 (128,800).—Indianapolis Board of Trade.

New York, N. Y.—Receipts and shipments of grain for November as compared to November, 1938, shown in parentheses, expressed in bushels, were as follows: Receipts, wheat, 3,252,838 (930,367); corn, 556,881 (604,729); oats, 131,900 (60,200); rye, 231,200 (5,100); barley, 850,510; soybeans, 1,106,000; flaxseed, 57,964 (591,000); millfeed (tons), 24 (56); hay (tons), 714; shipments, wheat, 1,657,000 (781,000); corn, 158,000 (20,000); rye, 125,000; barley, 890,000 (31,000); soybeans, 573,000; clover seed, 6,934 (578); millfeed, (62).—Dept. Information & Statistics, Produce Exchange.

Duluth, Minn.—Following the close of navigation an active and heavy railroading out movement of barley and oats sprang up. The oats went to the Quaker Oats Co. Continued fair weather early in December brought a rush of Canadian freighters loaded with screenings for distribution amongst feedmen for domestic consumption. Lack of storage space in Canada brought about this movement. Reshipment to various points in our northwest has been going on steadily. The movement of Canadian wheat to this market to be held in bond, because of plugged storage space in that country is on the wane, with elevator holdings now totaling 2,669,000 bus. Board of Trade records show that considerable less grain moved eastward by lake during the 1939 season than in the previous year. This year the movement totaled 84,494,536 bus. of all grains against 105,316,154 bus. in 1938. Domestic grain shipments this year were a little better than 6,250,000 bus. ahead of last year. Hauling of grain from farms to country elevators is on a restricted scale reflected in lighter receipts at terminal markets. While current advanced prices of wheat have induced redemption of C.C.C. loan wheat the amounts so far have not been important altho owners are showing more interest as the price becomes more attractive.—F.G.C.



Fluctuations of the December Futures

Prices of the Chicago December, 1939, deliveries of wheat, corn, oats and soybeans followed much the same pattern during May, June, July and August.

The downward movement in which all participated was dictated by large world stocks of wheat, and prospects of a large crop in Canada, of soybeans and corn in the United States. The rising prices during the last five months have been due to speculative buying when England, France and Germany went to war, strengthened by the later war between Finland and the Soviet.

WHEAT.—The first trade in December wheat was made May 4 at 74c, the low at 62c July 24, the high at 111 $\frac{3}{4}$ Dec. 18, and the close at 108 $\frac{3}{4}$ to 109 $\frac{3}{4}$ Dec. 21. The rise the middle of August took place when the Germans massed troops Aug. 19 on the Polish border. Peace prospects developed Aug. 25; but on Sept. 1 Germany attacked Poland and prices jumped the limit, reaching 89 $\frac{1}{2}$ Sept. 7, after Great Britain and France on Sept. 3 declared war on Germany.

A reaction followed with wide movements to 79 $\frac{1}{2}$ on Oct. 9, and at this time drouth in the winter wheat area became a bullish factor, and without an important reaction a rise followed of 31c during November and December.

CORN.—The first trade in December corn was made May 20 at 51 $\frac{1}{4}$ c, the low 39 $\frac{1}{4}$ c July 26, the high 60 $\frac{1}{2}$ c Sept. 7 and the close 55 $\frac{3}{8}$ to 34. The hundreds of millions of bushels of government loan corn exerted a depressing effect on the price, which never again reached the September high. Several bottoms were made in October around 48 $\frac{1}{2}$ c, nearly 9c under the government loan price of 57c.

OATS.—The first trade in December oats was made Apr. 13 at 28 $\frac{1}{2}$ c, the low July 24, with wheat at 25 $\frac{1}{2}$, the high 42 $\frac{1}{2}$ Dec. 19, going out at 41 $\frac{1}{8}$ to 42. After a high of 38 $\frac{1}{2}$ Sept. 6 oats were pulled down by corn to 31c

[Continued to page 540.]

South Dakotans Condemn Adverse Legislation

Discussion of legislation detrimental to the best interests of the grain trade, and the unwelcome retirement, as president, of the venerable Chris Jensen, were the high spots of the 33d annual convention of the Farmers Elevator Ass'n of South Dakota, held in the Marvin Hughitt Hotel, Huron, Dec. 12, 13, 14.

Tuesday, the first day of the convention, will long be remembered as the "day of the big dust storm." Regardless of this, numerous arrivals gave definite promise of a large attendance. The morning was given over to registration and renewing acquaintances.

PRES. CHRIS JENSEN, Putney, called the meeting to order, and after the invocation, Mayor Charles R. Kent extended the city's welcome, response to which was made by C. A. Wood, Plankinton.

The following is taken from Sec'y C. G. Anderson's report on the association's activities during the past year:

Secretary Anderson's Annual Report

The Association has enjoyed a very active year, beginning with the Legislative Session at Pierre, immediately following last year's convention. Although attempts to secure legislative approval of an Itinerant Merchants Bill were not successful, our efforts were not all in vain. In defense of work done on the Merchants Bill, it should be stated that in many instances farmer constituents failed to write their legislators, and the bill became labeled as a grainmen's bill. Other organizations who had an equal interest failed to assist us in the fight. We thought and still think that the bill as introduced was for the general good of our farmers and one which equally safeguarded the legitimate truck operator. In fact it provided smaller penalties and was in many ways less strict than our present law governing itinerant truckers.

Legislation

This past session saw the enactment of a law making it possible for an equitable adjustment of the amount of Warehouse Bond required when circumstances at a given point made the amount of bond established by statute in excess of the amount necessary to protect storage ticket holders. Due to Federal Wheat storage requirements, the amount saved by elevators in the lower bond brackets was little if any. However, those required by law to provide initial bonds of larger amounts, in many instances, saved in excess of their membership on this one item. Some twenty-five were personally assisted in this matter, and as a result of our efforts, it may be safely said that any elevator which benefited in this matter, owes its saving to the efforts of our association. This law provides the fairest possible basis for licensing of warehouses. The Public Utilities Commission worked with us 100% in seeing that every case received prompt and fair consideration.

Our state supervision of warehouses is functioning in such a manner as to protect holders of storage tickets 100%. Further, tickets issued by state licensed warehouses are acceptable to the United States Government as collateral on commodity loans and for the Government's own grain. Our Public Utilities Commission has demonstrated its desire to co-operate with federal agencies as fully as possible. We cannot, therefore, feel that any good whatever, could be accomplished by any measure which would weaken the authority of our State Board.

This past session a law was introduced making it possible for an elevator to designate whether it would be licensed under the State Law or under the Federal Warehouse Act. Such a bill, although not bad in itself, would permit federal agencies the choice of federal licensed or state licensed warehouses. We believe that eventually all elevators would be forced to secure a Federal license in order to secure Federal storage. In short, we are not in favor of federal regulation, in the administration of which we will have no voice.

Bonding and Insurance

Our bonding and insurance department is becoming increasingly important as a service to our elevators. Workmen's Compensation, Public Liability, Property Damage, Grain Title Insurance—all may be purchased through your state office and in companies of unquestioned financial strength. We are pleased to announce a new addition to this service. This is a new Burglary and Robbery Policy giving a very complete protection against burglary of cash, hold-up either on or off the premises, burglary of merchandise, fixtures, or equipment, and also

damage to premises and equipment as a result of burglary.

Balancing the Budget

We feel we have reached the point where we can embark on a more ambitious program in reaching the elevators of the state. In this respect we will welcome all suggestions, and especially would appreciate the reaction of our elevators to a plan for holding an evening district meeting every other month, with an evening meal and program of timely interest, pertinent to matters current at that time. This should enable each elevator to have closer and more frequent contacts with the administration of your Association.

KARL MUNDT, South Dakota Representative in Congress, in his talk on "Your Washington and You" drew frequent applause. He said, "You cannot make a saint out of a sinner, nor change an enthusiastic theorist into an efficiency expert by electing or appointing him to public office. America cannot prosper under a program which is half capitalist and half communistic nor one-half fascist and half free. By plaguing private business with government competition we reap the disadvantages of both systems, and receive the advantages of neither. Either we must return to the tenets of an economic democracy with government prods and penalties to prevent monopolistic, and unfair practices, or we must forego our American liberties to an even greater extent and turn everything over to the central government. The fallacy of attempting to cure economic ills by substituting government ownership and operation for private enterprise was demonstrated centuries ago in Asia, is being painfully and expensively demonstrated in our own country under the New Deal, where too much government ownership and too much politics in business are prolonging a post-war panic into a chronic depression.

Mr. Mundt advocated a formula of free enterprise and revived business and farming opportunity under government rules and regulations without actual direct competition from the government itself. He sharply criticized the government's entry into private fields of enterprise, and deplored the situation in which the American farmer now finds himself, forced to compete with Uncle Sam in the markets of the country.

Visiting "greats" were introduced at this time. They included E. C. Hillweg, Ass't Sec'y, Minneapolis Chamber of Commerce; Chas. Conaway, sec'y Farmers Grain Dealers Ass'n of North Dakota, and A. F. Nelson, sec'y Farmers Elevator Ass'n of Minnesota.

PRES. JENSEN appointed the following committees:

Resolutions: Olaf Borlman, Coleman; Joe Lacher, Craven; J. J. Genzer, Yale; J. H. Benidt, Clair City; George Kline, Groton; Joe Lappa, Leola; Frank Ripley, Huron.

Credentials: Ira Overton, Webster; John Oyan, Coleman; C. C. Anderson, Aberdeen.

Wednesday Morning Session

Attendance was rapidly approaching the 400 mark, and when vice-pres. Frank Cross of Randolph opened the second session there were but few vacant chairs in the hall.

W. H. THOMPSON, Omaha Bank for Co-operatives, gave an interesting talk on the value of audits, saying in part: The progress of your business is best reflected by a regular audit. In other words it is the eyes of your business. It is regrettable that many farmers' elevators do not realize the full value of an audit. Auditors should be hired by the Board of Directors, not by the manager. The audit should be taken before the entire membership, and gone over thoroughly and carefully. An audit is not made to determine the honesty of the manager, in fact the manager should welcome an audit.

Managers have too much to say who should audit the books. If the directors hire the auditor there will be no complaint about the audit. Too many farmers' elevators are careless in the handling of cash. The cash should be balanced every day. The directors should also take inventory, keep it and turn it over to the auditor.

J. J. MURPHY, chairman S. D. Public Utilities Commission, in telling of the work of his commission stated: There are 827 public licensed elevators in the state; 619 are bonded and qualified to store grain; 2150 certificated motor carriers and 9 class one railroads. Railroads are conceded to be necessary, and must be supported. Our commission can operate only 70% efficiently as the result of a strict retrenchment program. Scale inspection fees are not returned to the commission but are placed in the general fund and not appropriated out. We will ask the legislature to correct this error so we can use these fees to improve our service to you.

Mr. Murphy called attention to H. R. 6958, the Fulmer Bill, an amendment to the existing Federal Warehousing Law, introduced in the last session of Congress. He declared the bill, if enacted, would place all warehouses and elevators under federal supervision. I would urgently recommend the close study of this bill, and if you read it as I do, object to its passage write to your representatives and senators and urge its defeat.

W. H. HOLLIDAY, Omaha, in charge of Adminstrating the Warehouse Law, read a letter from the Washington office pointing out the advantages of the amendments to law and asking that those present lend their aid to their enactment.

Wednesday Afternoon Session

Standing room was at a premium when C. A. Wood, 2d vice-pres., opened the third session, the state's popular governor was the attraction.

GOV. H. J. BUSHFIELD gave a very inspiring talk, and severely denounced the government's agricultural program. He said: We are importing grain into this country in competition with our own farmers while the elevators and cribs of the country are bulging with three years' crops. The solution of America's agricultural problem lies in "more price and less advice." The farm problem is not a fixed one, but one constantly changing and requires different remedial steps from year to year. Finding jobs for America's 12 million unemployed, thus returning this vast army to the ranks of the producers, should be the immediate concern in returning agriculture and business



Chris Jensen, Putney S. D., relinquishes presidency of South Dakota ass'n to W. J. Jacobs, Falkton.

to a normal basis. The government's policy of flooding American markets with foreign goods is working a hardship on farmers and other producers. The U. S. now is importing 10 times as much goods as it is exporting. The item of fear must be removed from the American public, and in its place create an inducement to establish new industries. The governor extolled the advantages of the state, and was extremely optimistic over its future.

J. F. BACON, Greater South Dakota Ass'n, Watertown, in discussing the activities of his ass'n, asked for the support of the grain trade of the state in its work to improve business conditions within the state. In the course of his remarks he said: You elevator men must do your utmost. Every producer of mixed or inferior grain should be discouraged each time he markets inferior grain. You should preach quality grain. You should lead your community in a better farming movement, better cultivation, better seed, etc. New crops should also have your attention. Canes and sorghums have proved they are adapted to our state, and have been the salvation of many of our farmers. The acreage in these grains increased from 15,000 in 1930 to over 1,000,000 acres in 1939. This should prove to you they enter into the general scheme of better times for South Dakota and should be given increased consideration.

J. A. HOFFMAN, sec'y Watertown Chamber of Commerce, extended an invitation to the association to hold its 1940 convention in that city.

SOCIAL SECURITY brought forth considerable discussion, and various phases were explained in detail by Mr. Stewart of the State Social Security Division. He stated: It is a new program and admits of a variety of interpretations. The Old Age Insurance is an endowment fund. The Unemployment Compensation is a fund accumulated for the future unemployed worker and is provided by a tax on the employer where 8 or more people are employed. The state is credited with 90% of the 3% tax collected, the balance of 10% being paid to the Federal fund. Mr. Stewart also explained that officers of a company whether they receive pay or not are employees of the company, and, therefore, subject to the provisions of the social security law.

E. H. SEXAUER, Brookings, pres. Grain & Feed Dealers Nat'l Ass'n, addressed the convention on "Today's Country Elevator Problems." This very able address appears elsewhere in this number, and should be read by every member of the trade.

Thursday Morning Session

PRES. JENSEN was again in the chair, and called this final session to order.

T. O. SULLIVAN, Omaha, explained insurance and fidelity bonds and urged careful auditing and more careful supervision in taking inventories.

CHARLES CONAWAY, Fargo, N. D., sec'y Farmers Grain Dealers Ass'n of N. D., can always be counted upon to bring a worthwhile message to any convention of grain dealers. On this occasion he spoke on the value of associations, saying in part: There are associations like this in many states, and no doubt you wonder why there should be so many associations serving the same interests. Each has problems peculiar to its respective locality, and the national bodies, parent to the state associations, act as clearing houses for the exchange of ideas. Each of you, individually, has ideas on the many problems which confront us. Conventions like this give us the opportunity to hear them and apply the best. Every elevator operator interested in the improvement of trade conditions, which naturally improve his business, should belong to his state ass'n. When the ass'n is working for improved conditions it merits the support of every one engaged in the business. You know that you as an individual would have little influence preventing adverse legislation, but an association which enjoys the support, through membership, of a representa-

tive majority of the trade of a state, carries great weight. Consider, too, what it is doing in the field to protect your trade; its struggle to keep freight rates at a minimum. Above all, do not forget that the dissenting opinions you hear at conventions like this are of value to you. You owe it to yourself, to the trade and surely to your association to make every effort to increase its membership.

MR. THOMPSON was asked to explain the method of obtaining a loan from the Bank for Co-operatives. He insisted a good audit was necessary to protect the stockholders and to make it possible to secure satisfactory statements upon which loans might be made. He made the statement that if loans are turned down it is the fault of the companies and not of the bank, as the employees of the bank are charged with the responsibility of having the loans repaid. Mr. Thompson also revealed the Omaha Bank district had more defalcations than any other bank district in the U. S. He closed with the advice that companies must adopt sound business practices to obtain loans.

The following resolutions offered by the Resolutions Committee were read by F. S. Betz, Chicago. They were unanimously adopted:

Resolutions Adopted

Fulmer Warehouse Bill

It appearing that if H.R. 6958 were enacted the result would be an extension of federal authority over local grain warehouses destructive of state control,

Resolved, that we register our positive opposition to this legislation.

Land Grant Freight Rates

Whereas land grant railroad rates are discriminating to the disadvantage of producers and shippers compared with government agencies shipping the same products, resulting in a lower price level, therefore be it

Resolved, that we unite with groups similarly affected in urging their repeal.

Condemn Discrimination by Government Against Co-operative Elevators

Whereas, the government of the United States, thru the Farm Security Administration, is lending money to farmers in this and neighboring states, with which to pay for stock in a certain terminal marketing agency; and

Whereas, such loans are conditioned on an iron-clad contract that all grains marketed by the borrowing farmers must be shipped exclusively to this particular agency; and

Whereas, this amounts to gross misuse of public funds for the benefit of an organization that is in no way under the control of the government; and amounts to unjust discrimination against farmers and local co-operative elevators that have no interest in the agency thus being favored; therefore be it

Resolved that we strongly condemn this abuse of the functions and purposes of the Farm Security Act and call upon the United States senators and representatives in Congress from South Dakota to support it and similar associations in demanding that the Farm Security Administration discontinue this indefensible practice, immediately and completely.

Other resolutions were adopted thanking those who had contributed toward making the convention a success, urging member companies to have dependable audits made to avoid difficulties in making out tax reports, requesting Congress to enact a law continuing for an additional four years the emergency rates of interest of 3½ and 4 per cent under the Federal Land Bank and Land Bank Commissioner terminating July 1, 1940, and expressing the esteem and high regard in which the entire membership of the Ass'n hold Chris Jensen of Putney, S. D., who has served the Ass'n for ten years with exceptional devotion, and electing Mr. Jensen a lifetime director.

Election of President and Directors

W. J. Jacobs, Falkton, was nominated and elected to the presidency without a dissenting vote. M. J. Sutter, Castletown, was elected to the directorate to represent District No. 1, and Henry Hendricks, Claremont, District No. 5.

As a tribute to Chris Jensen, and with the consent of the chair, C. A. Wood presented a resolution, which was uproariously approved by the convention.

Mr. Jensen, with great effort, thanked the convention and asked Pres.-elect Jacobs to take the chair.

PRES.-ELECT JACOBS: You have placed me on the spot. It will be a real job to follow in the footsteps of Mr. Jensen, who is the most popular president this ass'n has ever had. I assure you I will make every effort to do my best, and with your support, which I must have, we will try to carry on where Mr. Jensen left off.

Adjourned *sine die*.

Thursday afternoon the Board of Directors met and elevated C. A. Wood to the office of 1st vice-pres.; Andrew Nelson Coleman, 2d vice-pres.; S. S. Judy, Forrestburg, treas., and C. G. and C. C. Anderson, Aberdeen, sec'y and ass't sec'y respectively.

The Stag

Through the courtesy of the grain commission firms, grain machinery and the coal companies, the visitors were entertained with an elaborate buffet dinner followed by several vaudeville acts and dancing. E. C. Hillweg acted as M. C.

Huron Convention Notes

Ed Schatz represented Hart-Carter Co.

The grain commission firms kept open house in many rooms throughout the hotel.

A miniature Strong-Scott Pneumatic Attrition Mill was exhibited by Sig Fangman.

A. R. Stenson and Al Wiedenman represented Stenson Twine Co., John P. Kadinger, Lindsay Bros.

The weatherman was very considerate, with the exception of the day of the dust storm. Mild weather prevailed.

The "picture gallery" operated for the Northwestern Fuel Co. proved a magnet, which drew every one of the 479 registered, to its doors.

The irrepressible Tom Ibberson passed out wind shield scrapers with the compliments of the T. E. Ibberson Co. The very modernistic drawing he exhibited attracted the attention of everyone.

The B. T. U. Club, the club of courtesy and good cheer, made up of the representatives of the many coal company representatives present, was in operation throughout the convention, and was a popular meeting place for the weary—and the thirsty.

R. R. Howell Co. exhibited a Cargill Grain Sampler, Calumet Cups, weight per bushel tester, 4 in 1 all purpose scale, belting, roller bearing pillow block, transmission rope. Fred Douglass, Harold Olson and Ed Mueller represented the company.

Gets \$45,000 for \$2,000,000 Federal Loan

Arrangements have been made for the Federal Farm Credit Administration to sell remaining assets of the Farmers Union Terminal Ass'n, beneficiary of federal expenditure in liquidation for nearly two years, to stockholders of the Farmers Union Grain Terminal Ass'n for \$45,000. Stockholders of the latter ass'n voted in favor of the purchase at their annual meeting in St. Paul, Minn., Dec. 12.

The assets were acquired by the credit administration several years ago, when it loaned \$2,000,000 to the ass'n and other regional co-operatives in an effort to save the now dead Farmers National Grain Corp., which spent part of its Federal loan to buy the market facilities of the terminal ass'n in 1929.

The Farmers Union Grain Terminal Ass'n was formed 18 months ago to handle the affairs of the Farmers Union Terminal Ass'n. Purchase of the assets of the latter, which include a mortgage on the Farmers Union Live Stock Commission Building in St. Paul, \$60,000 worth of stock in the Farmers Union Exchange, Inc., and some cash, settles claims against the grain corporation, and \$23,000 in debts of the former Cooperative Equity Exchange.

Better Outlook for the Grain Trade

By JOHN G. MCCARTHY
President, Chicago Board of Trade

"Members of the Chicago Board of Trade are looking forward to the coming year with a great deal of hope and with renewed confidence in the future of the grain business generally," said John G. McCarthy, president of the Board of Trade.

"Recent economic developments have brought encouragement to the grain trade. The noticeable improvement in business conditions as reflected in increased earnings and greater dividend distributions has been one factor that is taken to denote more prosperous days ahead. Another major influence is that the wheat supply and demand situation in 1940 is expected to be nearer normal than the past few years, through a radical reduction in production in this country.

"During the year business on the exchange has been both good and bad at times, being slow late last winter and in the early spring, but averaging fairly good by midseason, and improving greatly in the final quarter of the year.

"A burst of activity followed the outbreak of the war, and in this respect it is notable that quick action on the part of the directors of the Board of Trade in meeting this unusual situation by widening permissible daily fluctuations relieved the temporary tension, and kept trade functioning on a normal basis without undue price changes.

"Domestic grain trade conditions, while reflecting to some extent the world situation, have been better throughout 1939 in regard to price than in other countries. At the present time wheat at Chicago is selling much above the level of Canadian wheat, which in turn commands better prices than that of other countries.

"Due to the comparatively high loan prices fixed by the department of agriculture, farmers have held their wheat off the market, looking forward to such time as prices improve. Current wheat values in this country are now well above the loan levels, but there is still no evidence of any heavy redemption of loans.

"Taken as a whole the country raised excel-

lent crops this past year, but with the generous government loans on wheat and corn, there has been less than the usual movement of grain to markets. This has been a serious handicap to labor employed in transportation and has meant lower earnings for the railroads and the grain trade.

"Chicago warehouses are carrying several million bushels of both wheat and corn for government account, earning low storage charges for the elevators and in part at least making up for losses incurred by the retention of grain back on the farms and at interior storage points.

"The world in general has been suffering for several years from over-production of wheat, but there appears now to be a substantial readjustment of the supply and demand situation in prospect the coming year. The average of private estimates of the United States winter wheat crop indicated a crop of 389,000,000 bu., compared with 551,000,000 bu. raised in 1938, due to the unprecedented drought. Coincident with this development Argentina, which last year had a crop of 336,000,000 bu., this year according to recent estimates may have not more than 136,000,000 to 160,000,000 bu. Today's prices for all grains are much higher than a year ago, due probably to greatly increased buying power on the part of the consumers.

"These developments, with the war as a background factor, have changed the market picture radically, and have done a great deal to create hope for better returns to the farmers in the future, especially when considered with the uncertainty as to how extensive the destruction of grain cargoes will be, and to what extent production in the warring countries will be reduced the coming season with so many men under arms.

"One of the bright spots of the year for the local exchange and for the farmers of the middle west as well has been the further expansion in soy bean production and especially in the great broadening of the trade in Chicago soy bean futures.

"Notwithstanding the fact that the soy bean crop this year increased to by far the largest one ever raised in this country, such has been the demand that farmers have marketed their crop at steadily advancing prices. All records

for production, for marketing, for export business, and for trading in future contracts on the exchange have been shattered.

"It seems safe to say that as a result of the trading facilities provided by the Board of Trade, and the widening of the interest in soy beans, producers have been able to obtain much better prices than they would have otherwise."

Grand Opening S. D. Elevator Drew Big Crowd

When its buildings were completed the Farm Commodity Exchange of Lennox, S. D., held a grand opening for its new elevator and feed mill. Over 400 adults signed the registration book of the company, and over 900 folks came in time for the lunch served by the Ladies Auxiliary of Lennox.

After lunch O. J. Reimers, of Rock Rapids, Ia., addressed the visitors on farm problems.

A series of interesting events took up most of the afternoon. More than 75 premiums were awarded contestants, giving winners shares in \$30 in cash, 12,500 lbs. of coal, 3,000 lbs. of Blue Square feeds, and a number of articles purchased from 37 local merchants.

The new grain elevator and feed mill is the largest building improvement in Lennox in nearly two decades. Its doors were wide open to the public on opening day, and its many modern features were pointed out to the farmers who will be its patrons.

The properties include an office and feed and merchandise show room facing main street, a large wareroom over the office and a full basement under the office and the adjoining mill building.

Machinery in the mill building includes a hammer mill with 50 h.p. motor and Jacobson magnetic separator in special feeder, and a Strong-Scott pneumatic attrition mill with two 30 h.p. motors, magnetic scalper and special feeder. Feed mixers, corn cracking and grading machinery, a Strong-Scott feed dresser, and other equipment supplement the grinders to make a full line of "Blue Square Feeds," for horses, hogs, cattle, and poultry. The mill has a Fairbanks dormant scale for weighing sacked feeds. Bulk feeds are weighed on the truck scales in the elevator driveway.

Pneumatic handling of ground feeds from the mills assure customers wanting custom work of cool, dry, ground grains. Special bins have been provided in the mill for storing bulk feeds. Sacked feeds are stored in the large warehouse attached to the mill building and in space above the office.

An important part of the project is the 30,000 bu. grain elevator, which is divided into 16 bins so that different grains and different qualities of grains can be kept separate.

In the driveway to the elevator, adjoining the office, is the 28 ft. deck of a 20 ton Fairbanks truck scale. The 12x12 ft. entrance and exit openings of the driveway have folding doors on Richards-Wilcox heavy fittings and offset hinges. The offset hinges allow the doors to fold back against the walls inside, behind the door jambs, where they are safe from the ravages of wind, weather, and farm vehicles.

Spouting from the elevator serves bins in the feed mill so that the operation of the two units can be coordinated. The elevator has a modern head drive, Gerber distributor, a Strong-Scott manlift, and anti-friction roller bearings.

Buying and shipping of grain is an important part of the business of the Farm Commodity Exchange. In normal years it handles about 250,000 bus. of corn, oats, barley, rye, flax, and milo. The company has two elevators. The new elevator and feed mill is located on the Milwaukee railroad, the old house is on the Great Northern.

The show room, and attached office, is an important part of the new elevator and feed mill. Here "Blue Square" feeds, attractively



Modern Feed Mill and Elevator at Lennox, S. D.

displayed in cotton sacks bearing the brand name in a blue square on a field of diagonal blue lines, attract-attention, and open the way to sales promotion.

Under the show room and office is a full basement. In this is a steam heating plant that keeps the building warm.

Four men are regularly employed at the new plant, their duties divided. G. A. Mull is general manager. James E. Graff, bookkeeper, is also the grain buyer. Gus Aulwes is sales manager, in charge of the company's growing retail business in prepared feeds. Harm Van Bockern sticks to the mill, grinding and mixing the feeds, and sacking them for sale. Others are employed from time to time to assist these principals, and to handle coal from the large new coal shed that has capacity for 9 carloads.

This efficient farm service combination of elevator, feed mill, warehouse, office and show

room was designed and built by the T. E. Ibberson Co.

Commodity Brokers Must Register Before 1940

Futures commission merchants who fail to reregister with the Commodity Exchange Administration by Jan. 1, 1940, when all present registrations expire, are prohibited from handling customers' business, Dr. J. W. T. Duvel, Chief of the Administration, has announced. Under the Commodity Exchange Act, any person who solicits or accepts orders for the purchase or sale of any controlled commodity for future delivery and accepts margins, or extends credit in any form in lieu of margins, in connection with customers' orders, without having registered, is subject to a fine of \$10,000 or imprisonment for one year or both. The con-

trolled commodities under the supervision of the Commodity Exchange Administration are: wheat, corn, oats, rye, barley, flaxseed, grain sorghums, cotton, rice, butter, eggs, potatoes, millfeeds, and wool tops.

"Oil's Well"

Most grain dealers would be happy to have even a little interest in a producing oil well, let alone a whole oil well to themselves, right in the backyard.

But Fred French and Jack Van Ault, who operate the Fred T. French Grain Co. at Keensburg, Ill., not only have a whole oil well, but they have it right on the elevator property.

The French well was the first one down in the now famed Keensburg field in southeastern Illinois. Rotary drills, working in a pig lot that is part of the elevator property, struck oil on Aug. 15. For 21 days thereafter the well flowed 720 bbls. of black gold every 24 hours. Then other drills broke into the pool, relieved the gas pressure, and turned this, as well as succeeding wells, into a "pumper."

Nearly every back yard in this village of 350 people has an oil well. Within the one square mile that constitutes the corporate limits of Keensburg, 60 pumps are lifting the oil to tanks on the surface. On Sept. 1, 15 days after the French drill popped back to the surface with the drill head dripping oil, 42 rotary rigs were working.

Jack Van Ault, manager of the Fred T. French Grain Co.'s steam powered elevator, ran a pipe line under the 100 h.p. boiler in the elevator's power plant, replaced coal and cobs as a source of heat with casing head gas.

Enthused, he had a rotary drill start working in the back yard at his home in Keensburg. Less fortunate here, the drill had to be pulled up and restarted twice before it broke into the pool on Nov. 9.

The great number of wells in the Keensburg area has had an effect on the oil field. The pump at the elevator produced only 90 bbls. per day late in September. Production, however, rose again. Now it is pumping 175 bbls.

Survey of Elevator Operation in South Dakota

By L. M. BROWN

Marketing Research, South Dakota State College, before Farmers Elevator Ass'n of South Dakota.

During the Summer of 1939, 70 South Dakota farmers' elevator managers were interviewed to obtain information on what sidelines were handled, what margins were anticipated, and what margins were actually received.

The four most common sidelines were seeds, feed, coal, and twine. Of the 70 associations, 46 reported handling seeds: 55, feed; 68, coal; and 58, twine. The most common estimated gross margins for seeds were from 20 to 25 per cent, as compared with the common actual gross margins of from 15 to 20 per cent. Of those associations handling seeds, 70 per cent received less gross margins than were estimated.

In the associations handling feed, the most common estimated gross margins were from 15 to 20 per cent as compared with the actual gross margins of from 10 to 15 per cent. Forty per cent of these associations received less gross margins than they estimated.

All the associations but two handled coal, and the most common estimated gross margins were from \$1.50 to \$1.75 per ton, as compared with the actual gross margins of from \$1.25 to \$1.50. Of these associations, 59 per cent actually received less than was estimated.

The most common estimated gross margins for the 58 associations handling twine were from $\frac{3}{4}$ to 1 cent a pound, while the actual gross margins were from $\frac{1}{2}$ to $\frac{3}{4}$ cent a pound. Sixty-one per cent of these associations received less than was estimated.

As can be seen from the above figures, a majority of the associations did not receive the gross margins from sidelines that they expected.

For the year 1938-39 the average net income from all sidelines and services was only \$989. Some of the associations that were included in this average handled other sidelines besides the four mentioned previously.

Even when we arrive at the net income figure for sidelines and services we have not reached the end of the problem. The next step is the cost of credit. In most associations the bulk of the credit sales is from the sidelines. If the cost of credit amounts to 2.3 per cent of all retail sales or 5.4 per cent of all charge sales (as is shown in a study made by Glenn Fox while at Kansas State College) then the net margins will be further reduced before arriving at the final net profit.

Loss to Some on Side Lines—We may conclude that there are many farmers' elevator associations in South Dakota that are not receiving enough income from their sidelines. Many associations do not receive even the gross margins that are expected. In fact, if it were possible to obtain the true net income figure for some of the organizations after the cost of credit has been deducted, it would be found that little or no true profit had been made.

Thus, the picture has been reversed—the object of adding sidelines was to bolster the declining grain income, and in reality the low grain income was called upon to help carry the sidelines.

Mr. Brown exhibited three graphs, one of which is reproduced herewith. Two of the graphs showed the expenses per dollar of sales in 1937, 1938 and 1939 to have ranged from above 8 per cent to over 7 per cent; and the percentage of net profit to total sales to have been 3 per cent in 1937, 1 per cent minus in 1938, and 2 per cent in 1939.

1937			1938			1939		
Grain—62,000 bushels			Grain—88,000 bushels			Grain—131,000 bushels		
Grain—46,000 dollars			Grain—44,000 dollars			Grain—51,500 dollars		
Sidelines—\$24,000			Sidelines—\$23,500			Sidelines—\$25,200		

The third graph showed the percentage of current receivables to current assets, and the ratio of surplus stock. The percentage of current receivables to current assets was less in 1939 than in the two years preceding. The ratio of surplus stock was about 50 per cent in 1937, 44 per cent in 1938 and about 52 per cent in 1939.

Gross Margins on Sidelines of 70 South Dakota Farmers' Elevators in 1939

Sideline	No. Co.s	Hand'g	Estim'd	Margin of Profit	Co.s Netting less than
Seeds	46		20-25%	15-20%	70%
Feed	55		15-20%	10-15%	40%
Coal	68	\$1.50-\$1.75T.		\$1.25-\$1.50T.	59%
Twine	58	$\frac{3}{4}$ -1c lb.		$\frac{1}{2}$ - $\frac{3}{4}$ c lb.	61%



Manager Jack Van Ault of Fred T. French Grain Co. at Keensburg, Ill., beside oil well in elevator's backyard.

Methods of Dust Control

by DAVID J. PRICE, Buro of Agricultural Chemistry and Engineering, before Grain Elevator Superintendents at Chicago.

The dust conditions in a grain elevator are effectively controlled only when dust clouds are eliminated at their point of origin by the application of suction; dust accumulations are promptly removed from the building, either by a vacuum cleaning system or by a floor-sweep system, and the elevator and equipment are well ventilated.

The mechanical methods of controlling dust conditions can be divided into: dust collection; dust removal; ventilation.

Dust Collection.—Dust clouds rise at all points in the grain-handling system where grain is thrown, agitated or brought in contact with air currents. The principal points at which dust clouds are created in a grain elevator are: at receiving or unloading pits; at elevator boots; in elevator heads and hoods; at garners and scale hoppers; at belt loaders; at trippers; at bins; at discharges of conveyor belts; at tails of conveyor belts; miscellaneous points such as in marine towers in unloading boats, around turn heads or circle spouts on distributing floors or in basements and similar points of operation.

Dust accumulations and deposits are removed from the floors, walls, ledges, and equipment of an elevator and conveyed to a central point of deposit outside the plant by a number of methods such as: brush and broom method; floor sweep systems; compressed air; vacuum cleaning systems.

Natural ventilation can be accomplished by: doors; windows; louvers; stationary roof ventilators; revolving roof ventilators; pressure ventilators; floor ventilators; interstice bin ventilation of basement.

Mechanical ventilation can be accomplished by: disc ventilating fans; interstice bin fans.

Dust control equipment in grain elevators includes: fans; piping systems; dust collectors; grain traps; suction regulators; inspection traps; air velocity control valves.

Effects of Suction on Grain Weights.—Observations have been made by various agencies to determine what effect the use of suction as applied by dust collecting equipment may have on grain weights.

Tests were conducted by the Buro of Chemistry, in an export elevator equipped with a dust collecting system that applied suction to the scale hoppers, garners, belt loaders, and boots. One of the scale hoppers was filled with No. 2 hard wheat and weighed. The grain was then dumped and spouted into a storage bin from which it was later transferred to a shipping belt to be elevated for reweighing. Four runs were made—two with suction and two without suction. The garner bin was swept clean before each weighing, and the first weight of each run was taken under the same conditions as the last weight of the preceding run. Four suction lines not connected at hoods acted directly on the grain: a 3-inch pipe connection at the belt loader; a 3-inch pipe at the elevator boot; a 6-inch line to the garner bin; and a 6-inch connection to the scale hopper.

The results of these tests can be summarized as follows:

The shrinkage losses varied whether suction was used or not.

On the whole, the shrinkage loss was slightly greater when the fans were not operating than when they were running.

In two of the tests, when the fans were operating, the total shrinkage was 140 lbs. for a total weight of 232,600 lbs., or about 1/16 of one per cent.

In the other two tests when the fans were not operating, the loss was 180 pounds in a total

weight of 232,700 lbs.—about 1/13 of one per cent.

The largest shrinkage loss of 140 lbs. occurred in one of the tests when the fans were not running.

The results indicate that the effect on grain weights when suction is applied is practically the same as in the normal handling of grain without dust collecting equipment.

Preliminary investigations have also been conducted by the Buro of Chemistry in a number of grain elevators to determine the quantity of dust collected while elevating car lots of grain. The results of these tests can be summarized as follows:

Tests on 39 cars showed an average of 7½ pounds of dust collected per car. Several cars in this lot contained very dusty oats and several others contained screenings.

An average of 19 pounds of dust per car was removed from four cars of No. 3 white oats.

In spite of the fact that these tests were made with 1918 equipment which was not so designed that at all fan speed it would be impossible to lift heavy particles from the moving grain stream, the quantity of dust gathered by the dust collecting system probably would not exceed the natural loss incurred without dust collecting equipment.

Tests conducted by the Minnesota Railroad and Warehouse Commission in an elevator equipped with a dust collecting system designed and installed so that only the light floating dust was removed, showed the following results:

During the unloading of a car containing 50,000 pounds of flax screenings, 13½ pounds of dirt, refuse and fibrous material was collected—1/33 of one per cent.

In the unloading of another car containing 50,000 lbs. of No. 2 northern wheat only 25½ ounces of dust was collected—1/300 of one per cent.

These two tests were conducted on the extreme grades of material handled in a terminal grain elevator.

During the last year a large industrial plant in the Middle West handled approximately 1,791,250 bus. of corn with a moisture content of 16.49 per cent. There were 1,250 bus. of screenings removed—56 lbs. per bushel equals 70,000 lbs. This amounts to only 7/100 of one per cent in weight.

Control of Floating Dust in Terminal Grain Elevators.—In 1923 and 1924 Underwriters' Laboratories, Inc. conducted investigations to determine the essential factors involved in the application of suction to belt loaders, belt discharge pulleys, elevator heads, garners and similar parts of grain-handling equipment in order to minimize the escape of floating dust into the atmosphere of the elevator and at the same time accomplish this object without picking up an appreciable quantity of solid grain.

In these investigations the following problems were studied at a number of terminal elevators in Minneapolis:

(1) What *maximum* air velocity should be allowed at dust hoods to care properly for the dust without drawing in solid grain?

(2) What *minimum* air velocity in branch pipes and trunk lines will carry the dusty air and refuse from floor sweeps without allowing any particles to settle out and clog the lines?

(3) The feasibility of locating inspection traps in pipe lines near suction hoods, to be used by inspectors when checking the performance of the system, enabling them to determine whether grain is removed through the dust system.

(4) Application of direct versus indirect suction. By "direct connection" is meant a hood tightly attached to a boot, a garner, or other equipment, and to which the suction pipe is tightly attached. "Indirect connections" usually have the hood near, but not connected directly to the enclosed equipment.

The findings of this investigation can be summarized as follows:

(1) To prevent the pick-up of solid grain, the average air velocity at the intakes of suction hoods should be limited to 500 ft. per minute.

(2) The average air velocity in suction pipe lines should be at least 3,000 ft. per minute to prevent the clogging of the lines by the settling of materials likely to enter the system. This is especially important in view of the frequent connection of floor sweeps and dust hoods to the same trunk line piping.

(3) A definite ratio exists between hood-intake velocity and pipe line velocity. In the usual type of installation this relation is expressed as a ratio of hood intake area to pipe area. Any pipe line velocity in excess of 3,000 feet per minute may be employed, provided the hood area is large enough to limit the intake velocity to 500 feet per minute.

(4) As compared with direct connections, in direct connections are not effective in removing or controlling floating dust.

Inspection traps may be installed in branch pipe lines at convenient locations permitting determination by inspection that solid grain is not being carried away by the dust removal system.

Sweeping to Prevent Dust Explosions

By CHESTER J. ALGER, of Corn Products Refining Co.

To maintain good housekeeping conditions, the first step necessary is the education of the supervisory force up to a new standard of housekeeping. They in turn must train the employees, such as sweepers, etc., as to the proper method of sweeping—by actually showing them how. In other words, an employee should be trained as to the proper method of sweeping in the same degree in which he is trained in other functions of his job. If this is done in all departments where dust hazards exist, and if frequent inspections are made and a report of conditions found turned over to the management, you will soon have in operation a satisfactory and efficient method of control.

It might be well to emphasize that the dust that contributes to the severity of an explosion is the dust allowed to accumulate on machinery, overhead piping, equipment, etc., located above the floor where the pressure or vibration set up by the explosion causes the dust to be thrown into suspension.

There are numerous methods of cleaning up dust. At the present time vacuum dust collecting equipment is being successfully used in many plants. Where such equipment is not in service, the general practice of sweeping down beginning at the top should be observed. Some of the dust will circulate thru the air and accumulate on the overhead equipment, but after each sweeping there is a marked decrease in the quantity in such locations.

Who Pays Processing Taxes?

In opposing the enactment of Secretary of Agriculture Wallace's proposal to tax essential foods and fibres, the Millers' National Federation, in a statement, said:

"Arguments against the processing tax," Mr. Wallace said, "are arguments against fair prices for cotton, wheat and rice and other commodities." This is not the basis of the Federation's opposition to a tax of this kind. We are opposed to it because it is a consumers' sales tax on an essential food. It is a discriminatory tax in that it favors untaxed foods. It will unquestionably result in decreased consumption of wheat.

"The milling industry is carrying on a program designed to increase domestic consump-

tion of wheat and wheat products. During the last crop year the industry ground into flour approximately 50,000,000 bus. more wheat than it did five years ago when the processing tax was in effect. Part of this increase is due to the Government's program to encourage exports

of flour, but the greater portion represents an increase in domestic consumption. A new tax on wheat will wipe out the constructive effort now being made to increase domestic consumption."

On the consumer tax feature official govern-

ment publications, issued by the Department of Agriculture, contained the following statements:

AGRICULTURAL ADJUSTMENTS IN 1934, on page 233, said:

"Since bread and cotton cloth are among the indispensable necessities of life, practically every American consumer contributed to a processing tax."

"The ultimate taxpayer, then, is the person who eats the pork and bread and wears the cotton cloth, whose retail prices include the processing tax."

AN ANALYSIS OF THE EFFECTS OF THE PROCESSING TAXES LEVIED UNDER THE AGRICULTURAL ADJUSTMENT ACT, on pages 5 and 6, said:

"A very large part of the taxes on wheat, rye and cotton apparently was passed on to consumers in the form of higher prices."

"In most cases, the evidence seems to be conclusive that the tax was passed on to consumers in the form of higher prices."

Another Dust Explosion at Houston, Tex.

Three dust explosions blew out windows and casings of the four upper floors of the working house of the public grain elevator at Houston, Tex., at 5 p. m., Monday, Dec. 18. Blue and red flames are said to have accompanied the explosions, but no fire followed.

All of the men at work in the building escaped, six on the upper floors sliding down the spiral fire escape. Several of the nine stands of elevators in the house were in operation at the time, transferring grain.

The first explosion occurred in the top story, being propagated in a few seconds, floor by floor, to the three floors below, in succession. The expanding gases had great force, but the ample window openings relieved the pressure, saving the concrete walls; and the men at work did not happen to be standing where they could be blown out of a window.

Debris from the flying window sashes and frames was hurled outward 100 ft., some crashing thru the roof of the track shed below. The smokestack was blown down. The casings of the six legs in operation were cracked. The damage was greatest on the top floor. The conveyor galleries were not damaged, neither were the annexes containing 3,000,000 bus. of grain.

The dust collecting equipment was very complete. The basement and all floors had floor sweeps. The cupola had four sweeps on conveyor floor, eight on spouting floor, eight on scale floor and eight on head floor.

All belt loaders except bin discharge draw-offs were provided with hoods and pipe connections to exhaust the light dust escaping. The discharge ends of all the belt conveyors were connected over the tops of the pulleys to remove the light explosive dust, and on the under side of the pulleys to remove chaff and dust. Each fan discharged into a relief cyclone, all of the battery of eight being located at the head house, except the master fan discharging into a cyclone over the dust house 150 feet from the elevator.

The elevator is owned by the Harris County Ship Channel Navigation District, and operated by the Houston Port Commission.

Altho complete in itself as built in 1926 with 1,000,000 bus. capacity, two storage annexes and an addition to the working house were built by the Folwell Engineering Co. in 1930, raising the storage capacity to 3,475,000 bus.

This is the first dust explosion in the public elevator, but on Nov. 11 an explosion occurred in the grain elevator of the Houston Milling Co., doing considerable damage and badly burning one employe.

The construction of cupola walls of glass or light material which can be depended upon to give way before the force of a dust explosion saves the structural frame of reinforced concrete cupolas and reduces the damage to the building.



Cupola Stories of Houston (Texas) Public Elevator Badly Shattered by Three Dust Explosions Dec. 18 [See outside front cover].

Corn in Steel Bins Heats.

Several cases of Commodity Credit Corp. corn, in steel bins at local points in Iowa, heating at the top, have been reported to the Western Grain & Feed Dealers Ass'n.

Some of the bins are reported crusted over with a layer of soggy corn. One northern Iowa station reported the corn sprouting.

Cases of heating corn are attributed to corn having been put in the bins during periods of high temperatures. With the first cold days, moisture in the warm air mixed with the corn in the bins, condensed as it rose to the top.

Grain dealers assuming any responsibility for the corn in steel bins are warned to watch it closely. At the first sign of it going out of condition, notify both the local county A.A.A. com'te, and Ivan C. Harden, of the Commodity Credit Corp., Chicago, for instructions.

Processing Taxes Under Discussion by Administration

Sec'y Wallace is known to have expressed interest in a "certificate plan" for raising farm prices. The proposed plan would authorize the Sec'y to issue "certificates" to cooperating farmers annually for a marketable allotment on designated crops. The processor would be required to buy the offered crop at the market price along with the certificates, which would be valued at the difference between the offered price and the "parity" price. This tax the processor could then absorb, or pass on to the consumer thru higher prices.

Fiscal and monetary lieutenants of the President are reported to have turned thumbs down on such processing taxes and on suggested increases in farm benefit payments.

Gasoline Truck Hazard

The increased use of motor trucks for the transportation of grain, and the hazards incident to their operation in dusty atmospheres, emphasize the need for further study of this problem.

In some cases it is known that tilting of the truck to unload the grain may cause gasoline to spill from the tank or carburetor. After long runs with heavy loads the exhaust pipe and muffler of trucks may be hot enough to ignite dust.

A backfire when the truck is started after unloading would be capable of igniting dust deposits around the dump. If this method of grain handling is used at an elevator, it is recommended that all possible precautions be taken to eliminate these sources of ignition.—David J. Price, Bureau of Chemistry and Engineering, U. S. D. A.

Another Steel Bin Bursts

One of the "ever-normal granary" steel bins erected by the Pierson Grain & Coal Co. at Villisca, Ia., for the Montgomery County (Ia.) A.A.A. Com'te burst one night early this month and spilled 2,500 bus. of Commodity Credit Corp. shelled corn on the ground.

This is another of several such bins that have burst in different parts of the corn belt. Several bins in central Illinois have bulging walls and there are a few known cases of their having burst, or having been found about to burst, and reinforced to save the contents.

Blame for the bursting of steel bins is alleged to rest on their being overloaded. Common instructions to county com'temen at the time steel bins were being erected were to fill the bins no higher than the sidewalls. Yet a good many bins were filled to a cone over the tops of the sidewalls.

Coupled with the crowding of the bins, originally rated to hold 1,000 bus., 1,250 bus., 1,500 bus., and 2,000 bus. in the various sizes manufactured for the Agricultural Adjustment Administration, was the fact that most of the

corn that would be put in them was hybrid corn, and most approved varieties of hybrids weigh from 2 to 6 lbs. more per bu. than open-pollinated corn, on which the ratings were based.

Other steel bins in Iowa reported to have burst under their loads of C.C.C. corn are located at Marion, and Marshalltown. The 2,000 bu. bin at Marion that burst was doing its best to hold 2,457 bus. of corn.

Death of E. I. Bailey

Edward I. Bailey of Cleveland, O., died of a heart attack Dec. 17 while playing golf at the Mayfield Country Club.

Mr. Bailey was 66 years of age and president of the Bailey-Cain Co., his partner in the grain shipping business being Mayor Frank C. Cain. Mr. Bailey was born at Chagrin Falls, O., and went to Cleveland in 1892 where he engaged in the grain business. He was joined in 1902 by Mr. Cain, who will continue the business. His wife and a daughter survive him.

Chloropicrin Kills Insects in Grain in Bins

Grain stored on Illinois farms is not immune from insect damage a single month of the year, according to a cooperative experiment by M. D. Farrar and W. P. Flint, Illinois Natural History Survey; Thayer Cleaver, U. S. Department of Agriculture; and the Department of Agricultural Engineering.

Successful grain storage is not a matter of simply placing the grain in a tight bin and forgetting it. If the grain is very dry and is free from insects, no loss will occur; but if insects are present and the grain heats, either because it is stored with too high moisture content or because the roof leaks into the bin, severe insect damage may result.

During the winter months grain normally cools to a temperature below which insect activity occurs, but even during severe cold weather a condition of heating may create temperatures very favorable to insect development.

Tests of wheat stored during 1936-37 in 300-

bus. lots gave ample evidence on this point when two of the bins developed roof leaks. In grains under these leaks temperatures of 80° F. were discovered in December and in March. Insects were developing rapidly at these temperatures, necessitating either treatment or movement of the grain. The bins were fumigated.

Chloropicrin, at the rate of 1 gal. to 300 bus. of grain, gave excellent kill of the grain insects. The fumigant was poured on top of the grain and the grain covered with canvas to hold the fumes.

Washington News

The National Advisory Council will meet Jan. 16 at Washington.

Washington, D. C.—The Chief of the Children's Bureau in the Department of Labor has declared the occupation of motor vehicle driver or helper to be hazardous within the meaning of the federal Fair Labor Standards Act, effective Jan. 1. The Act prohibits employment of persons under 18 years of age in occupations the Chief considers hazardous or detrimental to health or well-being.

The National Cooperative Council is urging farmer-cooperative member organizations to work for restoration of the independent status of the Farm Credit Administration, now nominally under the Department of Agriculture, but fearful of being dominated by Sec'y of Agriculture Henry A. Wallace. The F.C.A. has \$3,000,000,000 in loans outstanding, secured by farm mortgages, this money having been raised thru sale of bonds.

The U. S. Tariff Commission has been instructed by President Roosevelt, on advice from the Department of Agriculture, to determine whether any likelihood exists of large quantities of Canadian wheat being imported to compete with domestic wheat. The existing tariff of 42c per bu. is considered sufficient to prevent huge imports, but the study is to be made preparatory to the possible event that the price difference may widen enough to overcome the tariff.



Steel Bin at Villisca, Ia., Burst and Spread Its Contents.

Grain and Feed Trade News

Reports of new elevators, feed mills, improvements; changes in firms; fires, casualties, accidents and deaths are solicited.

ARKANSAS

Hamburg, Ark.—The A. B. Cummins Feeds Mill has started operation. It is the only feed plant in this section.

CALIFORNIA

Chico, Cal.—The Northern Star Mills sustained a small windstorm loss at the plant Dec. 10. R. A. Harelson is owner.

Red Bluff, Cal.—The Tehama County By-Products Corp. plant will be completed and ready for operation by Jan. 1. Dead animals or inedible parts of animals will be processed into feed known as cracklings, for chicken and hog food and tallow base. Incorporators of the new firm are David Minch, John Hoy and Curtiss E. Wetter.

CANADA

Winnipeg, Man.—Thomas E. Thomson, ass't general manager and sec'y of the National Elvtr. Co., died at his home here Dec. 9. He had been in poor health since June. Interment was at Mount Vernon, Ind.

Winnipeg, Man.—Winnipeg's grain exchange will remain open for the duration of the war despite British pressure to close the market. It is said Minister T. A. Crerar has negotiated an agreement whereby Britain will buy Canadian wheat at market prices. Earlier Britain offered to buy wheat at a fixed price on a long-term basis.

Humberstone, Ont.—The same economic forces which have attracted the flour milling industry to Buffalo now are drawing Canada's milling industry to the East. Latest evidence of the centralization of flour milling in the Province of Ontario is the announcement that the Robin Hood Flour Mills, Ltd., has awarded contracts for the construction of buildings to house a 2,000-barrel flour mill and a 1,500,000-bu. elevator here, on the Welland Canal, a short distance from Port Colborne. This new unit will enable the company to tap the eastbound flow of grain from the head of the lakes and send the finished flour to consumers by rail or water. —G. E. T.

COLORADO

Fort Collins, Colo.—The Strang Grain Co. sustained a loss of stock on Dec. 9.

Burlington, Colo.—The two west offices at the Hart-Bartlett-Sturtevant Grain Co. elevator are being remodeled and redecorated.

Fountain, Colo.—J. Hascol Wilson, local coal dealer, has purchased the Fountain Feed Mill from Bert Gilliland, and will operate it in connection with his coal business. He will be assisted by John Bailey.

Denver, Colo.—The annual convention of the Colorado Grain Dealers Ass'n will be held at the Albany Hotel, here, Monday, Jan. 15. The business meeting will commence at 2 p. m., to be followed by a banquet and floor show, to which visiting ladies also are invited.—J. W. Campbell, sec'y, Colorado Grain Dealers Ass'n.

ILLINOIS

Havana, Ill.—The Continental Grain Co. has enlarged its local plant.

Chatham, Ill.—The Chatham Elvtr. Co. is equipping its plant with a new Atlas Belt.

Fisher, Ill.—The Farmers Grain & Coal Co. has bought the elevator of Chas. P. Gilman who plans to engage in farming.

Okawville, Ill.—Okawville Farmers Elevator installed a Kelly Duplex Hammer Mill and an ear corn crusher and feeder.

Rome, Ill.—The Lockport-Dupage Farmers Elvtr. Co. recently equipped its plant with new Atlas Belting and Calumet Cups.

Carthage, Ill.—The Carthage Elvtr. Co. was host to approximately 150 farmers and stock raisers at a dinner in the Masonic temple recently.

Bunker Hill, Ill.—The Bunker Hill Farmers Co-op Elevator has installed a Fairbanks Hammer Mill driven by a Fairbanks-Morse Explosion Proof Motor.—H. H. H.

Clifton, Ill.—The Wallace Grain Co. elevator is undergoing repairs. The cupola has been covered with corrugated metal; the roof has been renewed and given a coat of roof cement and the bins and driveway are being repaired.

Paxton, Ill.—George Kuhn, 82, died recently. He had been a patient in Lakeview Hospital, Danville, for three weeks following a fall in which he fractured his hip. Mr. Kuhn had been associated with various elevators here until a few years before his death.

Plainfield, Ill.—The Plainfield Grain Co. sponsored its 9th annual get-together day Dec. 9, beginning at 10:30 a. m. in the local plant. Entertainment was furnished thruout the day and at noon guests were treated to a hot lunch served by the directors of the company. Dr. Preston Bradley of Chicago, spoke at the afternoon meeting.

Morris, Ill.—The Bush Hatchery & Milling Co. has started operations at its new plant on U. S. Route 6 at the north edge of Morris. The new plant will specialize in the manufacture of balanced feeds for poultry and livestock. A complete line of poultry supplies and equipment will be carried also. George Wagner is manager of the business.

Steward, Ill.—The Steward Grain & Lumber Co. is reorganizing. New directors elected at a recent meeting include Osborne Arne, Howard Ritchie, Clarence Herrmann, James Kirby, M. W. Ravnaas, Mills Smith and Edward Shippee. Claude Herrmann, who has served as manager of the elevator for the last four years, made application for reappointment to that position.

Fisher, Ill.—The Fisher Farmers Grain & Coal Co. has assumed control of the Chas. E. Gilman elevator, consummating a deal negotiated with transfer of title last Oct. 30. The same service will continue under the new ownership as has been carried on by Mr. Gilman. The elevator space will be used in peak seasons to handle grain. The elevator property will be repaired Harold Steele, manager of the Fisher Farmers Co., stated.

Decatur, Ill.—The Evans Elvtr. Co. is broadcasting the Chicago grain markets, beginning at 9:35 a. m.; then on the hour and half hour until the close at 1:30 p. m. It has Lamson Bros. & Co.'s wire, and is heard over WSOY, Decatur, on 1310 kilo. Since the pioneer station of WDW at Tuscola, formerly operated by Jas. L. Bush, has ceased broadcasting every half hour, it has been difficult for the grain trade to find a market regularly.—T. E. Hamman.

Kansas, Ill.—The elevator under construction for C. R. Acord is of wood frame, to be metal covered; cribbed bins will have a capacity of 9,000 bus. of small grain. The elevator will be equipped with a sheller, a cleaner, three elevating legs, boots and a Hess Drier; a 12½ ton scale has been installed. A loading track is on the New York Central Railroad trackage. Mr. Acord also will handle coal and feed. Clifford Titus is in charge of building operations.

New Douglas, Ill.—Edward Rosenthal and associates recently purchased the Prange Milling Co. mill, elevator and equipment, for over 57 years owned and operated by the Prange family. The new owners plan to modernize the milling plant and install new feed grinding and mixing machinery and will manufacture a complete line of mixed feeds. The Messrs. Charles and Walter Prange, recent owners of the business, expect to devote their entire time to the Mount Olive National Bank of which they are president and cashier respectively.

Bunker Hill, Ill.—Milton Oldennettle has installed a cyclone molasses feed plant and a complete feed mixing unit in his feed mill.—H. H. H.

Springfield, Ill.—A note of warning is sounded to small business firms in the late release from the Illinois Department of Labor division of placement and unemployment compensation which states the following: Many employers, who in the past have not come under the Illinois Unemployment Compensation Act, will have to make payments under the act after Jan. 1, a result of changes made in the law by the Illinois Legislature last May. All employers who have six or more workers during any 20 weeks in the year come under the provisions of the act. It is not necessary that these employees work at one time, but the employer is liable under the law if he hires one man on Monday, another on Tuesday, a third on Wednesday, and so on thru the week, making six different employees working for him during that week, and if there are twenty such weeks in the year. All employers who had six or more workers in 1939 must pay contributions in 1940 even if he has only one person working for him in 1940. Every concern that comes under the law at any time during the year must pay contributions for the whole year, even tho the 20th week of employment of six or more workers was not completed until some time in December.

CHICAGO NOTES

Wm. B. Caldwell, a member of the Board of Trade since 1925, died Dec. 20.

Wilbur F. McWhinney, a member of the Board of Trade since 1932, died Dec. 23.

Daniel P. Orlic, engineer at the Northwestern grain elevator for the last 20 years, died Dec. 15 of a heart ailment.

The Eckhart Milling Co. is enlarging and remodeling its grain cleaning department. H. G. Onstad is in charge of the work.

The office building of the Star Grain Co. in South Chicago is being enlarged to provide convenient quarters for the inspectors and samplers. H. G. Onstad is doing the work.

Walter S. Shelly, 62, a salesman for Allied Mills, Inc., was killed Dec. 5 near Norwalk, O., when he fell asleep while driving his automobile, the car plunging into a ditch.

The Board of Trade will hold its annual New Year's entertainment on the trading floor Dec. 30. The program will start at 12:30 p. m. and will consist of music and other enjoyable forms of entertainment.

Henry N. Brenton, 83, retired Board of Trade operator, died at his winter home in Washington, D. C., Dec. 14. Mr. Brenton retired eight years ago after 50 years as a broker and member of the Board of Trade. His home was at Glenview, Ill.

Allied Mills, Inc., recently purchased the 133,780 shares of its no par common stock owned by Corn Products Refining Co. The acquired stock will remain in the treasury of Allied Mills, reducing its outstanding stock from 946,000 to 812,220 shares.

A membership in the Board of Trade sold Dec. 18 for \$2,000, an advance of \$850 in about three weeks. Memberships in the Exchange have been in active demand in the past few weeks as the result of the largest volume of speculative trading in several years.

A new pit for trading in soybean futures has been constructed on the Board of Trade floor. Increased volume of trading—15,005,000 bus. were traded in November establishing a new record—and the new interest shown in the beans by traders, led to construction of the pit.

INDIANA

Mays, Ind.—C. S. Stewart Elevator has installed a ½-ton Blue Streak Mixer with motor.

North Liberty, Ind.—C. G. Wolf has added a one story addition equipped with seed cleaner.—A. E. L.

Lafayette, Ind.—The Agricultural Engineering Dept. at Purdue University has installed a ½-ton Blue Streak Mixer.

Darlington, Ind.—Darlington's long abandoned water-powered grist mill on Sugar Creek is being put into operation again.

Seafeld, Ind.—Carl E. Sell is operating the Seafeld Grain Co. elevator under lease. He has been employed at the elevator since 1926.

Pierceton, Ind.—Layer Bros. have a large new office; a new sheller will be installed shortly, among other changes in the plant.—A. E. L.

Wheatfield, Ind.—The George Stembel elevator has replaced the old gasoline power unit with a new IHC four cylinder engine.—A. E. L.

Newton Stewart, Ind.—Taylor Bros. of French Lick are reopening the Newton Feed Mill. They will operate a custom feed mill and feed store.—H. H. H.

Attica, Ind.—Isaac Abbott Jones, Sr., 71, owner and operator of the Jones Bros. elevator for 36 years, died suddenly Dec. 15 at his home of a heart attack.

New Paris, Ind.—Martins Feed Mills will install another feed mixer, among various proposed changes. New mixer will be two ton capacity.—A. E. L.

Milan, Ind.—H. H. Crumm has completed the protection of his electric equipment in his local elevator plant by the installation of lightning and surge protectors.—H. H. H.

Tyner, Ind.—The C. G. Wolf elevator has been remodeled with new driveway and dump, new sheller, cleaner and man lift and a complete power wiring installation.—A. E. L.

Warren, Ind.—The Farmers Exchange, Inc., has installed a Blue Streak Hammer Mill with built-in magnetic separator, the mill connected direct to electric motor and with drag feeder.

Bremen, Ind.—Anthony Ervin, employed in LaPaz Grain Co. elevator suffered almost the complete loss of his hand while cleaning out a choke-up in feed mixer, when power was applied unexpectedly.—A. E. L.

Bargersville, Ind.—The Bargersville Feed & Supply has opened for business with Roy Umberger in charge. Custom grinding and mixing is done and a complete line of feeds for poultry, hogs and dairy is carried.

Williamsport, Ind.—The Robertson Grain Co. is erecting a large building in the rear of its present new building to house tractors and a stock of power farm equipment. The company recently completed a new office building.

Mishawaka, Ind.—E. H. Downs, owner of the North Side Feed Store, razed the old feed mill and has built a new mill. It is now being equipped with new 40 h.p. hammer mill, sheller and cleaner and other machinery.—A. E. L.

Hammond, Ind.—Rudy Opsal recently resigned as manager of the Pratt Food Co.'s local plant, which position he held for the last three years. Prior to that time Mr. Opsal was sales manager for the Arcady Farms Milling Co., Chicago.

Fort Wayne, Ind.—Indiana Grain & Hay Dealers Ass'n held a banquet meeting Dec. 5 in the Hotel Anthony Chatterbox when Dr. C. G. Taylor of Cleveland and Lima, O., addressed the members. The ass'n will meet Jan. 5 to hold election of officers.

Van Buren, Ind.—The Farmers Grain Dealers Ass'n of Indiana will hold its convention at Hotel Spencer, Marion, Ind., Feb. 7 and 8. Speakers capable of discussing subjects of paramount interest to members will be on the program and a large crowd of persons interested in the grain business is expected to attend.—Frank Pyle, pres.

Evansville, Ind.—Charles Nunn & Sons Milling Co. is installing a 190-h.p. diesel engine in its mill and elevator. It will be housed in a concrete fire resistive power house. The mill will be driven direct from the oil engine but the elevator and auxiliary plant will be electrically driven from a 100 kva generator direct connected to the oil engine.—H. H. H.

Indianapolis, Ind.—The Federal Trade Commission has closed without prejudice its case against Piel Bros. Starch Co., which was charged with price discrimination in violation of the Robinson-Patman Act in the sale of corn products. The case was closed without prejudice because it appeared that voluntary liquidation of the respondent corporation is in process.

IOWA

Sunbury, Ia.—The Farmers Grain & Lumber Co. has been reincorporated and renewed for a further period of 20 years.

Sargents Bluff, Ia.—The Sargents Bluff Farmers Elvtr. Co. has replaced its old Bender Overhead Truck Lift with the new, silent, worm-gear type.

Albia, Ia.—J. H. Knight, proprietor and manager of the Albia Roller Mills, died Dec. 10. He suffered a stroke while driving his car.—“Art” Torkelson.

Waverly, Ia.—The Farmers Exchange is installing an electro-magnetic separator in its feed plant, the equipment furnished by R. R. Howell Co.

Ringstad, Ia.—The Co-operative Grain & Produce Co., Einer Christensen manager, entertained farmers and their wives at a free movie program Dec. 13.

West Bend, Ia.—A new feed warehouse was recently constructed here for the Davenport Elvtr. Co. It will replace a warehouse that burst last fall.—A. G. T.

New Sharon, Ia.—Defective wiring at the Lamis Elevator Dec. 8 caused a fire that did an estimated \$1,000.00 damage.—Art Torkelson with Lamson Bros. & Co.

Shenandoah, Ia.—T. J. Gwynn, 78, retired grain dealer, died in his sleep early Dec. 14. Mr. Gwynn at one time resided in Norwich where he owned a grain elevator.

Cornelia (Clarion p.o.), Ia.—Dale Peterson, new manager of the Cornelia Grain & Lumber Co., has remodeled the office at the elevator. Laurel Morford is assisting him at the elevator.

Goldfield, Ia.—Rod's Feed Mill has opened for business. A new mill has been installed and a feed mixer will be added. Custom grinding will be a specialty. John Rod is owner of the new business.

Clinton, Ia.—Joseph Clark, 54, operator of the feed mills in the Clinton County refinery, died in a local hospital Dec. 20, it is believed of injuries suffered in a fall from a ladder at the plant. He had been with the company 29 years.

Ames, Ia.—The twenty-fifth annual student corn and grain show will be held in Agricultural hall on the Iowa State College campus Jan. 30 to Feb. 2, under auspices of the student section of the American Society of Agronomy.

West Bend, Ia.—The Davenport Elvtr. Co. has completed a new warehouse which replaces the one that burst last fall, spilling several thousand bus. of sealed corn upon the ground. The new structure has a capacity of 15 car loads of feed.

Corwith, Ia.—The Farmers Grain Co. elevator which in recent years has been leased by the North Iowa Grain Co. was sold recently to Nick Veldhouse of Kanawha, Ia., who will take possession July 1, 1940.—Art Torkelson with Lamson Bros. & Co.

Storm Lake, Ia.—Fifty elevator men, seed and feed dealers of Buena Vista and adjoining counties enjoyed a turkey dinner the evening of Dec. 15 at the Bradford Hotel, sponsored by the hybrid seed corn department of the Standard Seed Co. of Des Moines.

Wall Lake, Ia.—Mechanical equipment for the new plant of the Pop Corn & Distributors, Inc., is being supplied by R. R. Howell Co., and includes Howell Boots and Heads, Howell Boot Tank, Atlas Bucket Belting; Calumet Cups, Howell Direct Connected Geared Head Drives; link-belt conveyors, Howell Spouting. Nile Shannon has the contract for construction of the plant.

Ackley, Ia.—Work has been completed at the new elevator of the Farmers Co-operative Elvtr. Co., August A. Carstens, manager. A 22 x 42 ft. warehouse has been built; the office and feed room, 22 x 42 ft., is of brick construction and is separated from the elevator. The latter structure has a capacity of 20,000 bus. of grain. The new plant replaces the one destroyed by fire Sept. 6.

Cedar Rapids, Ia.—A 30 ft. extension to the three story laboratory of the Penick Ford, Ltd., Inc., plant in Cedar Rapids has been started to conclude the company's 1939 expansion program, which has cost approximately \$400,000. Contract for the project was let to Lightner Bros. of Cedar Rapids. The structure will be ready for occupancy about Feb. 1.

A two floor addition to the package starch building is 80% complete. Cost of this addition when complete will be \$150,000. A new warehouse for the company was completed last October.—A. G. T.

Des Moines, Ia.—The following new members have been enrolled by the Western Grain & Feed Dealers Ass'n: West View Grain Co., West View; Miller Grain Co., Parkersburg; Stonega Co-op. Co., Webster City; Continental Grain Co., Davenport; Continental Grain Co., Cedar Rapids; Continental Grain Co., Clinton; Durant Elvtr. Co., Inc., Durant; The United Grain Co., Omaha, Neb.; Dedham Co-op. Ass'n, Dedham; Redbird Hatchery & Supply Co., Des Moines; Kelley Feeds, Inc., Des Moines; M. Young & Co., Winterset; Corn Belt Supply Co., Sioux City; Rankin & Clark, Rockwell; Farmers Co-op. Elvtr. Co., Linn Grove; Western Flour Mills, Davenport; Farmers Co-op. Co., Mondamin; International Milling Co., Sioux City.—Ron Kennedy, sec'y.

KANSAS

South Haven, Kan.—Wm. Kopper Grain Co. has installed a Kelly Duplex Vertical Feed Mixer with motor drive.

Junction City, Kan.—The Farmers Elvtr. & Supply Co. recently purchased the old packing plant on East Fourth St., which it may use for auxiliary pen space in connection with the sales pavilion.

Newton, Kan.—Grant Morris, critically ill for weeks in a Newton hospital, was able to return to his home, but it will be some time before he is able to resume his duties as grain buyer for the Newton Milling & Elvtr. Co.

Wellington, Kan.—Fire of undetermined origin destroyed the elevator of the Farmers Elvtr. Co. Dec. 14. The elevator was leased by Wolcott & Lincoln, Inc. A quantity of feed, 4,500 bus. of wheat and 500 bus. of corn were lost.

Galesburg, Kan.—C. C. Duecy's new 8,000-bu. elevator has been completed. The new building is covered entirely with galvanized iron, is of latest design and contains all new and up-to-date machinery. Equipment includes an electric truck dump. Office quarters have been constructed just south of the elevator. The elevator and feed store will be operated as the C. C. Duecy Grain Co. with Mr. Duecy as manager. He was formerly manager of the Farmers Union Elvtr. Co. elevator that burned last August, the company liquidating after the fire.

LOUISIANA

Hamburg, La.—W. T. Nolin recently installed a Kelly Duplex Vertical Feed Mixer, one ton capacity.

MICHIGAN

Northstar, Mich.—High winds caused a small amount of damage at the plant of the Northstar Elvtr. Co. recently.

Jasper, Mich.—The Farmers Co-operative Elvtr. Co. sustained a small loss at its plant Nov. 27 from high winds.

Breckenridge, Mich.—The Breckenridge Bean & Grain Co. recently sustained a small loss at its plant from high winds.

Woodman Crossing (Unionville p.o.), Mich.—Joseph Block of Ubyli is building a receiving station for grain here along the Pere Marquette Railroad tracks. Mr. Block operates a similar elevator at Ubyli.

Pinckney, Mich.—The Portable Mill Operators of Southern Michigan have organized with the following officers: Pres., George Peckens, Fowlerville; sec'y, Burr Wood, Charlotte; treas., Wayne Aton, Fowlerville.

STRATTON GRAIN CO.

MILWAUKEE, WIS.

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NEW YORK, N. Y.

MILL FEEDS — FEED PRODUCTS — BY-PRODUCTS

Consignments and Future Orders Solicited

Middleton, Mich.—The Middleton Farmers Elvtr. Co. has completed its new feed department, opening it for business early this month. The 20x40 ft. building has a seven bin overhead capacity of from 4,000 to 5,000 bus. New machinery was installed for grinding and mixing feeds.

MINNESOTA

Bethel, Minn.—Bethel Feed & Produce Co. recently installed a Kelly Duplex Ear Corn Crusher and Feeder.

Sauk Center, Minn.—The Farmers Shipping Ass'n is installing a Howell Duplex Safety Man Lift in its grain elevator.

Duluth, Minn.—The Duluth Clearing Ass'n will hold its annual meeting Jan. 2, to elect two directors each to serve three years.—F. G. C.

Ihlen, Minn.—H. G. Pederson has taken possession of the former Farmers' Elevator here, which he recently purchased from the Cargill Co.

Lawrence Lake, Minn.—T. W. Ahola, proprietor of the Balsame Store, has built an addition to his place to be used as a feed room and warehouse.

Bird Island, Minn.—Wm. van der Hagen has sold the Bird Island Grain & Feed Co. to H. F. Schulte of Greenwald, Minn., and the new owner has taken possession.

Jasper, Minn.—The south wall of the National Atlas Elvtrs. local elevator collapsed recently under the pressure of about 18,000 bus. of stored government corn.

Duluth, Minn.—R. C. Schiller, has made application for membership in the Duluth Board of Trade as floor trader for the Farmers Union Grain Terminal Ass'n.—F. G. C.

Franklin, Minn.—A. F. Abraham, who recently resigned as manager of the Kellogg Commission Co.'s Buffalo Lake elevator, has accepted a position at the Franklin Milling Co.

Pipestone, Minn.—The new building constructed to house the new feed grinder recently purchased by the Pipestone Grain Co. has been completed and the grinder has been installed.

Buffalo Lake, Minn.—Orrin Fluck has succeeded A. F. Abraham as manager of the Kellogg Commission Co.'s elevator. Mr. Abraham recently resigned and is now located at Franklin.

Hardwick, Minn.—Charles E. Carter, 64, pioneer grain buyer, died of a sudden heart attack at his home near here on Dec. 10. He had assumed the managership of the E. A. Brown grain elevator here about two months ago.

Bloomington, Minn.—James R. Edmond, veteran manager of the plant of the Bloomington Prairie Farmers elevator, has resigned, effective Jan. 1. He will be succeeded by Kenneth Berg, once local manager of the Central Co-operative oil ass'n.

Angus, Minn.—Contracts for construction of a 40,000-bu. capacity annex and modern feed mill of an approximate cost of \$12,000 were awarded by the Angus Farmer Co-operative Elvtr. Ass'n to the Hogensen Construction Co. J. H. Feick is elevator manager.

Evansville, Minn.—The C. Roe Grain Co. is improving its elevator, installing considerable new equipment including a Howell Direct Connected Geared Head Drive with 5-h.p. Fairbanks-Morse Motor, Howell Roller Bearing Boot and Head, Atlas Belting and Calumet Cups.

Oklee, Minn.—The Farmers Elevator Co. has awarded a contract to J. H. Fisch Co. to remodel its two elevators here. A large new steel boot tank will be installed under the west elevator with a new Fairbanks Scale. A new modern driveway will be built with the latest type of folding doors.

Duluth, Minn.—Benjamin Stockman, 76, prominent grain executive until his retirement in 1932, died Dec. 11. Mr. Stockman came here in 1911 to be manager of the Duluth-Superior Milling Co., later becoming president of the firm. He served as president of the Duluth Board of Trade for two terms, in 1920 and 1921.

MINNEAPOLIS LETTER

The Minnesota state grain testing mill, lands, building and equipment, will be sold. Bids for the sale closed Dec. 19.

The Northwest section of the American Ass'n of Cereal Chemists held its annual election of officers Dec. 22 in Minneapolis.

A 2,000-bu. Fairbanks Hopper Scale equipped with the latest type grain beam, is being installed in the Marfield Elvtr. Co. elevator by R. J. Keehn.

The Bunge Elvtr. Corp. has deferred until spring building of its reinforced concrete 500,000-bu. storage elevator. No contract for its construction has been awarded.

St. Paul, Minn.—The Farmers Union Grain Terminal Ass'n has re-elected C. L. O'Connor of New Rockford, N. D., pres.; O. B. Horsford, Wolf Point, Mont., vice-pres.; A. E. Kathman, Brady, Mont., sec'y-treas.

St. Paul, Minn.—The Farmers Union Grain Terminal Ass'n at its annual meeting Dec. 12 voted to purchase for \$45,000 all the remaining assets of the Farmers Union Terminal Ass'n, which has been in process of liquidation for nearly two years.

Minneapolis, Minn.—General Mills, Inc., reported that 98 per cent of the outstanding shares of its 6 per cent cumulative preferred stock has been deposited for exchange for the new 5 per cent preferred shares. The company made its offer to holders Nov. 2, which expired Dec. 1. The company has voted two dividends, the regular quarterly dividend of \$1.50 on outstanding 6 per cent cumulative preferred stock payable Jan. 1 and a regular quarterly dividend of \$1.50 on the new series 5 per cent cumulative preferred stock, payable Jan. 1, the first dividend on the new preferred.

MISSOURI

East Prairie, Mo.—The mill of the East Prairie Milling Co. burned the night of Dec. 15. The elevator was saved. The fire originated in the cob house.

St. Louis, Mo.—The St. Louis Grain Club held its annual fall meeting at the Hotel Statler Dec. 14 when the following were elected as officers for 1940: M. Grover, pres.; Harry Adam, vice-pres.; Wilbur Christian, sec'y; directors, A. R. Benson, J. Bronemeier, Al Hoffman and W. E. Ohlemeyer. New members were R. L. Parker and C. H. Appel.

Kansas City, Mo.—Directors of the Board of Trade Dec. 19 ordered margin requirements on grain future trades be raised 2c on wheat and 1c on corn. The new requirements are: On hedging and spreading trades, 3c a bu., except trades in the same grain in the Kansas City market, 1c; all other trades, 10c on wheat and 6c on corn.

Edina, Mo.—J. L. Cornelius, who recently retired from the grain and feed business to move to his farm, has rented his main building near the depot to the Brees Produce Co., who will continue a similar business there in addition to their down town place. Lately the Brees Co. purchased a new seed cleaning machine and now acquired a second one from Mr. Cornelius.—P. J. P.

St. Louis, Mo.—Robert F. Scott, 83, engaged in the grain brokerage business here since 1914, died in a St. Louis hospital Dec. 11. Mr. Scott moved here from Indianapolis, Ind., where he had been prominent in the grain business for many years and was a member of the Indianapolis Board of Trade. He was credited with many of the factors in the development of the grain brokerage business of that city.

St. Louis, Mo.—Bert Collins, manager of the Checkerboard Elvtr. Co., has been nominated for the presidency of the Merchants Exchange for 1940, to succeed T. M. Scott, who will become a director of the exchange. Julius Mayer was nominated for the first vice presidency, and W. H. Toberman for second vice-pres. Nominated for membership on the Board of Directors are S. W. Dreyer, L. F. Schultz, H. A. Adam, and M. B. Grover.—P. J. P.

Kansas City, Mo.—R. A. Kelly, present first vice-pres., and J. F. Leahy have been nominated as candidates for president of the Kansas City Board of Trade for 1940; Roy E. Swenson automatically becomes first vice-pres.; Gunnard A. Johnson and John Stark, are candidates for second vice-pres. Six directors will be selected by vote of exchange members from the following nominees: Hearne Christopher, O. T. Cook, T. A. O'Sullivan, Milton W. McGreevy, A. D. Thomason, M. L. Gear, Francis J. Russell, E. M. Jolly, J. B. Mitchell, H. F. Spencer, H. O. McVey, H. L. Robinson. Candidates for the arbitration com'te, five to be selected, are: E. A. Cayce, Warren E. Root, Francis J. Fitzpatrick, C. J. Gundelfinger, H. H. Hodgson, E. C. Hoebel, L. A. Laybourn, E. A. Hogan, C. S. Hopper, D. E. Walter.

St. Louis, Mo.—The grain and feed store of I. Mariam & Co. was damaged by fire Dec. 2.

St. Peters, Mo.—The Farmers Co-operative Elvtr. Ass'n mill and warehouse was destroyed by fire Dec. 13.

Omega Spur (Larussell p.o.), Mo.—The Omega Co.'s elevator and mill, which burned recently, will not be rebuilt. The old foundations are being dynamited and the place cleaned off so the lease may be canceled. The company is a co-operative farmer-owned organization.

MONTANA

Nashua, Mont.—The Russell Miller Milling Co. elevator was damaged slightly by high winds recently.

NEBRASKA

Hastings, Neb.—The Nebraska Consolidated Mills Co. sustained an electrical damage recently.

Bladen, Neb.—High winds on Dec. 1 caused a small amount of damage at the plant of Goffe-Carkener, Inc.

Overton, Neb.—The Farmers Co-operative Elvtr. Co. recently built a small building adjacent to the elevator and installed a feed grinder for custom grinding.

Hastings, Neb.—The Farmers Co-operative Grain & Supply Co. is laying preliminary plans for reorganization of the company in an attempt to stave off foreclosure proceedings.

Omaha, Neb.—Everyone interested in the welfare of grain growers and in relief from governmental interference with the production and efficient marketing of grain will be glad that Hugh A. Butler of the Butler-Welsh Grain Co. is a candidate for a seat in the U. S. Senate.

Giltner, Neb.—The Farmers Elvtr. Co. will construct a building and install feed grinding equipment there. Plans call for a 20 x 24 x 20 ft. building with a basement and 12 ft. wide loading shed. Construction will start this month. Natural gas will furnish power to operate the grinder.

Omaha, Neb.—J. N. Campbell, sec'y-treas., of the Nebraska Millers' Ass'n for the last 21 years, since the formation of the organization, resigned recently. In tendering his resignation Mr. Campbell made reference to the severe decline in the financial support accorded the ass'n in the last three years, primarily as a result of poor crops.

Nebraska City, Neb.—Chairman Morton Steinhart of the Nebraska City dock board has announced receipt of a new set of plans for the million bushel rail-river terminal grain elevator, to be built here if a \$320,000 R. F. C. loan to finance construction and 20 years of operation is approved. Fate of the project, which would be the only river-rail terminal north of Kansas City, hinges on the outcome of the loan application. Plans for the 80 ft. high and 300 ft. long structure were submitted by Horner & Wyatt, consulting engineers who designed the \$1,575,000 structure with a 3,250,000 bus. capacity at Kansas City. Labor cost at Nebraska City project was estimated at \$67,000 and materials at \$161,000.

Ashland, Neb.—Milton Anderson, 27, who defrauded the Farmers Union Grain Co. of \$282, was arrested Dec. 8 at his home in Kimball for forging the name of Earl Schrepf, Lincoln grain buyer, to two checks for that amount. Anderson admitted his guilt and was sentenced to 11 years in prison by District Judge L. S. Hastings. Anderson telephoned from Lincoln to L. G. Hayes, manager of the local elevator, asking if he had any corn for sale, representing himself to be Earl Schrepf. Mr. Hayes telling him yes, Anderson stated he would send a truck for a load. The following day he called for the corn, tendering a check for \$93.97 in payment. The next day he sent for another load, writing another check, this time for \$188.32. Both checks were signed "Earl Schrepf" and proved to be forgeries.

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The GRAIN DEALERS JOURNAL

Valmango, Neb.—The Union Co-operative Grain Co., recently installed a Winters Pneumatic Truck Lift, supplied by R. R. Howell Co.

Valentine, Neb.—S. T. Vanderheiden has purchased the interest of his partner, Don Higgins, in the Valentine Feed Mills, and will continue the business under the same name.

NEW ENGLAND

Providence, R. I.—Fire of unknown origin on Dec. 5 damaged stock of the Modern Grain Co., owned by the Park & Pollard Co., Inc.

Littleton, Mass.—The Farmers Grain Co., Inc., has been organized; capital, \$10,000; incorporators, Dean K. Webster, Lawrence; Dean K. Webster, Jr., Methuen, and Walter N. Webster, Andover.

NEW YORK

Ballston Lake, N. Y.—The Saratoga Cereal Products Co. plant burned for a total loss on Dec. 17.

New York, N. Y.—The Produce Exchange recently elected to membership James Clayton Caldwell, Hasbrouck Heights, N. J.; Alexander Lehmann, New York; Randall M. Newman, Hastings-on Hudson, N. Y.; and Fred J. Werner, New York City.

New York, N. Y.—Directors of Penick & Ford, Ltd., processors of edible oils, have ordered a dividend of \$1 a share on common stock, payable Dec. 26 to holders of record Dec. 15. This will lift total payments for the year to \$4 from \$3 in 1933.

Amenia, N. Y.—Fire of undetermined origin threatened the large warehouse of the Checkerboard Feed Co. Damage estimated at \$500 resulted when the fire swept through the business office of the plant. The adjoining warehouse, containing many tons of grain, was untouched by the blaze.—G. E. T.

BUFFALO LETTER

The Christmas party at the Buffalo Corn Exchange will be held Dec. 27. The party will begin with a cocktail hour on the trading floor at 5 p.m., followed by dinner, dancing and entertainment. Harold Baker, Quaker Oats Co., headed the com'ite. The date was changed from Dec. 20 to meet the wishes of the majority of exchange members.

More than 800 persons attended the Co-operative G. L. F. Mills, Inc., annual Christmas party in Buffalo.—G. E. T.

Montreal and other St. Lawrence ports this year trailed Buffalo by almost 4,000,000 bus. in handling grain sent down the lakes from Ft. William and Port Arthur, Ont. Up to Nov. 30, Buffalo had received 60,509,808 of the 234,792,293 bus. loaded at the Canadian lakehead ports, compared with only 13,806,772 bus. last year, while 22,154,405 bus., about 3,500,000 less than last year, went to St. Lawrence ports. Buffalo's lead was attributed to congestion at Montreal and delayed ocean sailings, coupled with removal of the 6c duty on Canadian grain moving to the United Kingdom thru other than a Dominion port.—G. E. T.

NORTH DAKOTA

Beulah, N. D.—The Farmers Elevator has changed ownership and in future will be known as the Beulah Farmers Union Elevator.

McVie, N. D.—The McVie Equity Elvtr. & Trading Co. recently placed an order with R. R. Howell Co. for a Clipper Seed Cleaner with motor drive.

Sweetwater (Webster p.o.) N. D.—Harvey Wellington Van Fossan, 67, manager of the Farmers Grain Co. elevator, died at his home in Devils Lake Dec. 3.

Agate, N. D.—Extensive remodeling work is under way at the Farmers Co-op. Elvtr. Co. The arrival of electric power lines is making possible the installing of modern mechanical equipment, including Howell Direct Connected Geared Head Drives with motors, new roller bearing heads and boots, Atlas Belting, Calumet Cups, Howell Distributors and Spouting, and a new motor driven air compressor. The work is being done by Hover Vigen and all equipment is being supplied by R. R. Howell Co.

OHIO

Piqua, O.—The Holland Mills, Inc., plant was destroyed by fire Dec. 13.

Perrysburg, O.—Fire starting under a motor Nov. 28 damaged the Perrysburg Grain & Supply Ass'n elevator.

Alliance, O.—The Master Feed & Seed Co., Inc., recently let a contract for a 75-ft. extension to its warehouse.

Lynchburg, O.—Dewey Bros. Co. has installed a one-ton capacity Kelly Duplex Vertical Feed Mixer with motor drive.

La Rue, O.—F. J. Laubis purchased a sheller, stand of elevators and drives recently from the Sidney Grain Machry. Co.

Yellow Springs, O.—Dewey & Hamma have installed a Kelly Duplex Vertical Feed Mixer with motor drive, two-ton capacity.

Quincy, O.—Quincy Grain Co. recently installed some new Sidney equipment including two complete head drives, and a new style revolving screen cleaner.

Derby, O.—The Alva Hill Grain Co. has completed the enlargement of its store-room and office building. The new room will be used as feed room and warehouse.

Columbus, O.—Commencing Jan. 2, station WHKC will broadcast the opening of the soybean market in addition to the closing quotations, time to be announced later.

Continental, O.—Final dissolution of the former Continental Equity Exchange Co. has been made. C. A. Hiegel & Son, operators of a line of elevators, has purchased the elevator property.

Ashville, O.—The Ashville Grain Co. has discarded its old dust bin and erected another in a different location. The feed grinding-mixing room at the elevator has been enlarged and the plant otherwise improved.

Defiance, O.—The Ohio Farmers Grain Dealers Ass'n will hold its Silver Jubilee Convention Feb. 22-23 at Toledo, O. Plans are being made for an unusually enjoyable and instructive program for the two day session.—C. S. Latchaw, sec'y.

Bucyrus, O.—Edward G. Reid, 72, Bucyrus' senior grain elevator proprietor, died Nov. 29, following a prolonged illness of 10 months. Mr. Reid retired from the E. G. Reid elevator business late in 1933 after passing 50 years in the same kind of business here.

Fort Loramie, O.—The Fort Loramie Milling Co. plant has been purchased by Henry Landman of St. Henry, former owner of the Landman Milling Co. in St. Henry. The mill was a part of the J. D. Inderlieden estate. The new owner will modernize the mill and reopen the plant.

OKLAHOMA

Manchester, Okla.—The State Line Grain Co. feed plant is in operation. The new feed mill is capable of conditioning any grain for any feed purpose; custom grinding is a specialty. C. C. Lambke is the business manager.

Ponca City, Okla.—The many friends of Sunny Jim Hutchins, long prominent in the grain business of the state, will be grieved to learn of his passing on Dec. 12. He was long active in the councils of the Oklahoma Grain & Feed Dealers Ass'n and served several years as president.

Erick, Okla.—Borin Elevator was recently purchased by Murray Knox and W. R. Hall of Lubbock, Tex., and will be operated under the name, Erick Mill & Elvtr. Co. A new hammer-mill, mixer and roller mill have been installed, the plant equipped for custom grinding and mixing, and repairs have been made.

Oklahoma City, Okla.—Fire starting on the sixth floor of the seven-story shaft topped by the dust bin, used for cleaning grain, at the Oklahoma City Mill & Elvtr. Co. building, Dec. 13, spread the entire length of the shaft, doing extensive damage on the fifth, sixth and seventh floors. The fire was prevented from spreading into the mill proper.

Durant, Okla.—E. W. Stewart, proprietor and manager of the Stewart Grain & Elvtr. Co., whose mixed feed mill, sheller building and warehouse burned Dec. 4, stated rebuilding would start at once. The company's elevator, standing 20 ft. distant from the sheller building where the fire originated, was saved from burning by wind which blew the flames in the opposite direction. Flames were bursting thru the top of the sheller building when the fire was discovered, and spread rapidly to the nearby mill and warehouse. Intense heat ignited a large sheet-iron covered storage room on the elevator building, but the flames were extinguished before much damage resulted. The warehouse contained 2,300 bus. of shelled corn, two carloads of oyster shell and a quantity of fertilizer.

PACIFIC NORTHWEST

Moro, Ore.—The Moro Grain Growers Ass'n is equipping its elevator with Calumet Cups.

Tokio (Ritzville p.o.), Wash.—The O'Neill Grain Co. recently installed a 15-ton scale at its local elevator.

Endicott, Wash.—The Endicott Grain Co. has taken over the agency of the International Farm machinery and equipment.

Ritzville, Wash.—The O'Neill Grain Co. has completed a new overhead loading bin with a capacity of 2,500 bus. of grain at its local warehouse.

Kelso, Wash.—Lee's Feed Store, dealing in feeds, hay, grain and farm supplies, has been opened in West Kelso by Charles Lee and his father, Frank Lee.

The Dalles, Ore.—E. O. McCoy, for many years president and manager of the Wasco Warehouse Milling Co., but for the last few years retired, died of pneumonia Dec. 16.

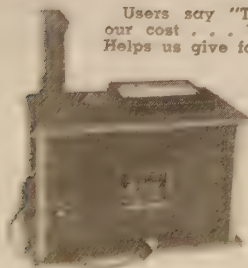
Portland, Ore.—Wheat shipments from the Columbia river during the past week included 121,233 bus. loaded for Norway. This was the largest single shipment to Norway this year.—F. K. H.

Umatilla, Ore.—The Pendleton Grain Growers, Inc., has applied to the district army engineers for a permit to construct a bulk grain terminal on the Columbia river here. The terminal would have a 75,000 bu. capacity.—F. K. H.

Portland, Ore.—Production of flax in Oregon has already swung into a good cash market on the basis of Minneapolis prices for all that is likely to be produced according to Dr. D. D. Hill, associate agronomist of Oregon State College.—F. K. H.

Davenport, Wash.—The Davenport Commercial Club recently adopted a resolution addressed to the Grange Milling Co. directors, urging that the Grange mill be rebuilt in Davenport. The mill was destroyed by fire Oct. 28, and other cities have asked that the business be transferred there.

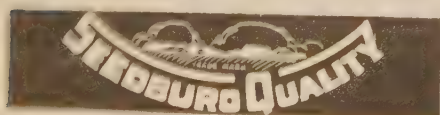
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grain and seed testing equipment. The Seed Trade Reporting Bureau, Inc., 223 West Jackson Boulevard, Chicago, Illinois. Serving the grain and seed trades since 1912.



Davenport, Wash.—Directors of the Grange Milling Co. met here Dec. 13 following adjustment by the insurance company for the loss of the mill that burned here recently, and made plans for rebuilding. The site of the proposed new plant was not decided upon. Many towns are petitioning as sites for the new mill.

Winlock, Wash.—Friction when a power wheel driving the feed grinders stuck at the Washington Co-operative Egg & Poultry Ass'n plant Nov. 29, causing the belt to slip and, catch fire, set fire to the shaft. The stubborn blaze was extinguished with difficulty, the damage being confined to the belting and buckets and about 90 ft. of the leg.

Condon, Ore.—The Eastern Oregon Wheat League in recent 12th annual convention adopted a report showing increase of from 50 to 100 per cent during the last 5 years in cost of handling farm products at the Port of Portland and demanded the right to be represented at all hearings affecting the handling and transportation of farm products.—F.K.H.

PENNSYLVANIA

Bangor, Pa.—The Flory Milling Co.'s grain elevator was badly damaged by fire Dec. 4. The loss was insured.

Elwood City, Pa.—W. W. Davidson, dean of Elwood City's business men, has retired at the age of 81 years, having sold the W. W. Davidson & Son Feed Co. business to the Dan Weisz Feed & Coal Co. Mr. Davidson established the business 48 years ago. Mr. Weisz has taken possession and plans to merge the two establishments in the Davidson building.

Philadelphia, Pa.—The Commercial Exchange and other organizations having their headquarters in the Philadelphia Bourse, held the 16th annual Christmas party for poor children of Philadelphia Friday afternoon, Dec. 22. Over 500 children were present and each child was presented with a sweater, a box of candy, oranges, apples and cakes. Entertainment features included acrobats, clowns, performing animals and other circus attractions.

SOUTH DAKOTA

Fulton, S. D.—The Fulton Farmers Elevator Co. sustained a property damage loss early in December.

Wentworth, S. D.—The Farmers Elevator Co. is equipping its driveway with a set of Howell Sectional Steel Dump Grates.

Watertown, S. D.—Alfred Green, manager of the Watertown Milling Co. for the past six years, has resigned and plans to enter business in Minnesota.

Garretson, S. D.—The Farmers Co-operative Grain & Supply Co. will install a feed mixer and grinder at the elevator. An addition will be built on one of the elevators where the new machinery will be housed.

Brookings, S. D.—Elmer H. Sexauer, president of the Grain & Feed Dealers Nat'l Ass'n and an active grain merchant of the northwest, was elected a director of the Northwestern Bell Telephone Co. at a recent board of directors' meeting in Omaha.

SOUTHEAST

Wilsonville, Ala.—P. S. Smith has installed new and modern equipment for crushing and grinding corn at his mill.

Shepherdstown, W. Va.—Hodges & Lemen Co. installed a Kelly Duplex Vertical Feed Mixer with motor drive, one-ton capacity.

Miami, Fla.—The Miami Feed & Supply Co. building was destroyed by fire Dec. 10. The blaze originated in a store room which had been filled with bales of mixed hay.

Hinton, W. Va.—The Hinton Milling Co. property was sold at public auction Dec. 16 to satisfy a claim of \$22,533.50 for a \$5,000 loan, interest and back taxes. The mill has a daily capacity of 100 bbls.

TENNESSEE

Fayetteville, Tenn.—The manufacturing plant of the Farmers Grain, Seed & Feed Mfg. Co. was destroyed by fire recently. The loss was heavy with little insurance. The warehouse and its contents were saved.

Nashville, Tenn.—John S. Fletcher, owner and manager of the Fort Negley Mills, is preparing to draw plans for rebuilding the mill which was damaged by fire, Dec. 2. It will be necessary to construct a new roof and repair damage to the first and second floors. The fire is believed to have started from an unattended gas heater.—J.H.G.

TEXAS

Panhandle, Tex.—The Panhandle Wheat Growers, Inc., office building was damaged by fire Dec. 16.

Robstown, Tex.—The J. Norris Olson feed mill in the Texas-Mexican Railroad Co. owned building was destroyed by fire recently.

Cleburne, Tex.—The J. D. Wilson Feed Mill was destroyed by fire Dec. 8. Mr. Wilson, sleeping in the office in the building, had a narrow escape from being burned to death. When flames awakened him he escaped with difficulty thru the only passage way not completely blocked by fire. Approximately 70,000 lbs. of feed was burned. No insurance.

Happy, Tex.—The Happy Wheat Growers elevator and 14,596 bus. of wheat were destroyed by fire of unknown origin early in December. The elevator was owned and operated for many years by a group of wheat growers in and around Happy under the name of the Happy Wheat Pool. Later a reorganization changed the name to Happy Wheat Growers. H. L. Book, manager of the elevator, stated the company will continue to buy wheat and load direct to railroad cars until the elevator can be rebuilt. The office, scale, trackage and feed house were not damaged by the fire.

UTAH

Salina, Utah.—Sevier Valley Mercantile installed a Kelly Duplex Vertical Feed Mixer, one ton capacity.

WISCONSIN

Haugen, Wis.—Ed Novak is operating the feed mill here.

Ladysmith, Wis.—Wester Bros. of East Chipewa recently purchased a new hammer mill.

Madison, Wis.—Hoffman Feed Co. has recently installed a Eureka Combination Corn Cutter and Grader.

Milwaukee, Wis.—William H. Manegold, 83, at one time an officer of the P. C. Kann Co. grain firm, died recently at Milwaukee Hospital.

Mt. Calvary, Wis.—The Mt. Calvary Coal & Lumber Co. has installed a new mill and mixer better to serve its feed customers.—H.C.B.

Milwaukee, Wis.—J. E. Walsh, for a number of years Wisconsin state manager for Arcady Farms Co., has resigned to become vice-pres. of the Ladish-Stoppenbach Co.

Reedsville, Wis.—The Reedsville Co-operative Ass'n observed the opening of its new two-story building here Dec. 15. The company operates a grain elevator and a feed grinding mill.—H. C. B.

Milwaukee, Wis.—Directors of the Froedtert Grain & Malting Co. on Dec. 19 voted the regular dividend of 30c per share on preferred and one of 20c a share on common, Kurtis R. Froedtert, chairman and president, announced. Both dividends will be paid Feb. 1 to stock of record Jan. 15.—H. C. B.

Special Taxes on chain stores were condemned in a resolution adopted at the Chicago meeting of the National Vegetable Growers Ass'n of America, experience having shown these punitive taxes increase costs to the consumer and limit production.

Three Northern Wheat, f.o.b. St. John, N. B., for December shipment is worth about 82c per bushel. To this cost must be added overseas freight, including marine and war risk insurance at approximately 14c per bushel, or a total cost, c.i.f. Liverpool, of roughly 96c per bushel. Argentine Rosafe is quoted at 57c f.o.b. Buenos Aires, plus freight and marine and war risk insurance of almost 22c, makes that wheat worth about 79c, c.i.f. Liverpool, or a discount of 15c under our No. 3 northern wheat.—McCabe Bros. Grain Co., Winnipeg.



R. H. Folwell, Chicago, Ill., Deceased.

Death of R. H. Folwell

Chicago, Ill.—Russell H. Folwell of the Folwell Engineering Co. died in the Passavant hospital Christmas Day after a long illness. He had specialized in the designing and construction of fireproof grain elevators, serving first with the Barnett & Record Co. and D. A. Robinson Co. and afterwards as engineer for the James Stewart Corp. and the Folwell & Alskog Co. Burial was at Minneapolis.

A Bearish Effect on corn prices can be expected from the large receipts of hogs at packing houses.

Railroad Claim Books

(Duplicating) require little of your time for filing, and contain spaces for all the necessary information in the order which assure prompt attention by the claim agent. They increase and hasten your returns by helping you to prove your claims.

- A is for Loss of Weight in Transit Claims.
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- E—Overcharge in Freight or Weight.

These claim blanks are printed on bond paper, well bound in book form, each book containing 100 originals and 100 duplicates, a two-page index, instructions and summary showing claims unpaid, and four sheets of carbon.

The five forms are assembled in three separate books, each of 200 leaves, weight 3 lbs. Price of each book \$2.00, plus postage.

- 411-A contains 100 sets all Form A.
- 411-E contains 100 sets all Form E.
- 411-5 contains 60 sets Form A, 10 Form B, 10 Form C, 10 Form D and 10 Form E.

Grain & Feed Journals

Consolidated

332 South La Salle St. Chicago, Ill.

Chicago Hearing on Ex-Barge Proportionals

Examiner R. G. Taylor of the Interstate Commerce Commission held three day and one night sessions in the Morrison Hotel, Chicago, Dec. 19 to 21, on the matter of cancellation of proportional rates east bound from Chicago, Peoria, and St. Louis on grain arriving at those points by river barge.

This proceeding, docketed as I. and S. 4718, grew out of the filing of tariffs by the railroads canceling the reshipping rates on grain arriving at Chicago in river barges in an attempt to get back some of the traffic from northern Illinois points that they were rapidly losing to the barges.

The hearing drew delegations representing conflicting interests. The railroad companies were well represented, W. T. Tannehill of the Central Freight Ass'n testifying nearly all of the first day and presenting some 13 exhibits explaining the local situation. Neil D. Belknap, an attorney, represented the Chicago grain warehousemen receiving grain by barge and opposing the cancellation of the low rail rate they now enjoy. John E. Brennan, a director, and J. S. Brown, manager of the Transportation Department, represented the Chicago Board of Trade, favoring the cancellation.

W. B. Wheat represented the Peoria Board of Trade and Freeman Bradford, sec'y, the Indianapolis Board of Trade.

The rates on corn from the northern Illinois stations and from a few points in northwestern Indiana and southwestern Michigan, had been reduced in April, 1939, in an effort to meet water competition. The reduced rail rates to Chicago, however, had been specifically excepted from the application of the transit and the reshipping rates; hence traffic moving into Chicago by barge, without previous rail movement, had a considerable advantage over traffic moving to that point via rail under the barge-competitive rates.

Lawrence Farlow, of Bloomington, sec'y of the Illinois Farmers Grain Dealers Ass'n, and W. E. Culbertson, of Delavan, sec'y of the Illinois Grain Dealers Ass'n, headed delegations in support of cancellation of the tariffs who object to the grain from territory tributary to their elevators going to the river point buyers. A dozen elevator operators at Illinois Valley points said the barge business hurt them, as they are not able to do business as they used to do.

Grain dealers in northern Illinois using the barges testified that, because of the existing adjustment, they were able to offer producers a cent a bushel more for their grain than the prices offered by rail shipping elevators. In addition, they said, they absorbed the cost of the transportation of the grain from the farm to the nearest barge terminal, sometimes as far as 38 miles away. If the suspended tariffs were allowed to go in effect, they testified, the producer would lose those advantages.

The Chicago warehousemen, the Federal Barge Line, and shippers at Morris and other points on the waterway, said that since there was nothing different in the handling of the ex-barge grain eastbound by rail from the handling of the all-rail grain, there was no justification for charging the former a higher rate. Just as the inland elevators said that the continuance of the proportional on ex-lake grain would put them out of business and dissipate their investments, so representatives for the river elevators said the cancellation of the proportional would ruin their investments and cause them to go out of business.

There was no reason, they insisted, for considering the depressed rate on corn into Chicago as paralleling, in its exclusion from the transit, the barge grain which the suspended tariffs intended to deprive of the transit. The corn rates, they insisted, were put in not so much to meet the barge competition as to meet the competition from ex-lake grain, in the application of the proportionals to which no change was intended in the suspended tariffs. The rail shipper still had the proportionals available on his shipments, it was pointed out, because he could elect to ship to Chicago on the regular interstate grain rate, somewhat higher than the depressed competitive corn rate, and so make the transit applicable on his traffic. The real discrimination under the proposal, according to the testimony, would arise between the ex-lake and the ex-barge grain, because the proportionals would remain in effect on the former after cancellation on the latter.

They alleged the plan would operate to deprive the producer of grain in territories adjacent to the rivers of their natural geographical advantages. It was also charged that the cancellation of the ex-barge proportionals was inspired by grain commission dealers at Chicago, because their commissions on rail grain were 1 cent a bushel while those on barge grain were only ½ cent a bushel.

The Commission will set a time and place for resumption of the hearing.

Third Official Corn Record on Same Field

Shattering both yield records and corn growing precepts, Richmond Robison, Delavan, Illinois farmer, has produced the highest yield of corn, 155.41 bus. per acre, to win the Illinois 10-acre yield contest conducted by the State Crop Improvement Ass'n, for the third successive year.

Robison's 1939 yield, three times the state average of 51.5 bu. per acre and a new record for the Official State Contest, was made on the identical 10 acres which in 1937 produced 131.1 bu. per acre for the highest yield that year and last year again won the contest with a yield of 137.96 bu. per acre. The three year record of 4,245 bus. from 10 acres sets an all-time three year record of 141.5 bu. per acre from the same field.

Robison ascribes his success to five sound farm policies. These are: first, watch soil fertility closely replacing with fertilizers, manure and soil building crops, fertility removed in corn yields. Second, plant the corn thickly. Third, make a good seed bed and cultivate well. Fourth, hope for rain, and last but not least, plant a mixture of strains of locally adapted high-yielding hybrids.

Under the Robison system the seed is planted at the rate of five to seven kernels per hill, double the usual planting rate. Instead of selecting a single hybrid strain, Robison uses a mixture or blend of several strains or varieties of the same hybrid. His 155.41 bu. per acre field was planted with five hybrids, C-169, a new hybrid which he included after it made unusual test records in his locality, G-53 and G-32, two hybrids developed to take advantage of high fertility levels, G-212, a hybrid noted for resistance power to drought and insects and G-94, a strain with the ability to utilize long growing seasons. By mixing these strains in the planter box, Robison feels that he increased the ability of the crop to adapt itself to conditions of the growing season and minimizes crop hazards.

December Futures Fluctuations

[Continued from page 527.]

Oct. 9, but late that month rallied better than corn or wheat.

SOYBEANS.—The first trade in December soybeans was made May 24 at 81½c. There followed a long decline under brilliant crop prospects to 65¾c Aug. 15, and a remarkable advance to 129¾ Dec. 18. For a comprehensive review of the soybean market see page 480 of Dec. 13 issue.

Calendars Received

Frank J. Sommer, of J. H. Teasdale Commission Co., St. Louis, Mo., is remembering his friends with a handy little desk calendar for 1940, in a bright orange-red color.

Henry Simon, Ltd., Cheadle Heath, Stockport, Eng., is sending its customary calendar, with "Best Wishes for the New Year," to its friends here, regardless of unsettled conditions and "black-outs" over there. The daily sheets of the calendar carry quotations from the world's great literature.

Allied Mills, Inc., Chicago, has each monthly sheet of its 1940 calendar cut in the outline of a bag of feed, and striped in colors to represent Wayne Feeds.

International Harvester Co., Inc., Chicago, uses a grey background on the monthly sheets of its 1940 calendar, against which is shown farm machinery of the International line in bright colors.

John E. Brennan & Co., Chicago, commission merchants, uses red and black ink profusely on their 1940 monthly calendar, and designate the changes of the moon on each sheet.

The Hart-Carter Co., Minneapolis, combines a 1940 calendar and a letter holder in its friendly gift to the trade for the new year.

Representative Dirksen, of Illinois, has proposed that the inspection and grading provisions of the Federal Grain Standards Act be extended to soybeans, and will foster a bill for this purpose when Congress convenes.



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Quality of 1939 Grains Analyzed

The quality of the 1939 crops of wheat, barley, oats, and rye, is analyzed in a report by the marketing service of the U. S. Department of Agriculture covering inspected receipts at representative markets from July thru October. Says the report:

HARD RED WINTER WHEAT: 44% of the inspected receipts during the period July 1 to Sept. 30 classified as Dark Hard Winter, compared with 46% in 1938 and 50% for the 5-year average; 59% of the receipts graded No. 2 or better, only 6% grading lower than No. 3. This compares with 38% and 29% respectively, in 1938, and 58% and 21%, respectively, for the 5-year average.

The 1939 crop in general is of higher average test-weight-per-bushel quality as compared with the 1938 crop, altho receipts from the Texas Panhandle and adjacent Oklahoma territory were of considerable lighter test weight than last year. The moisture content has been low, after the first few days of the harvest, when some "tough" wheat was received. Foreign material was a less important grading factor than during the 1937 and 1938 harvests. The wheat tested at Kansas City averaged 13.54% protein compared with 12.94% for the same period last year.

This year's crop of hard red winter wheat produced in Montana, Idaho, Washington, and Oregon is of good quality. Of the inspected receipts in these States, 73% graded Dark Hard Winter as compared with 45% in 1938; 96% graded No. 2 or better as compared with 95%, and the average test weight per bushel was 60.9 as compared with 61.7 last year.

HARD RED SPRING WHEAT: 98% of the inspected receipts from Aug. 1, thru October classified as Dark Northern Spring as compared with the same percentage last year and 97% for the 5-year average; 55% of the receipts graded No. 2 or better, with only 12% grading lower than No. 3. This compares with 49% and 24%, respectively, for 1938 and 38% and 41%, respectively, for the 5-year average.

Protein content for the 1939 receipts at Minneapolis averaged 14.4% as compared with 14.1% for the same period last year.

BARLEY: 53% of the inspected receipts from July 1 through September this year classified as Malting Barley. This compares with only 22% in 1938 and with the 5-year average (1934-38) of 24%; 31% graded 2 or better with only 9% grading lower than No. 3, compared with 25% and 18%, respectively, in 1938 and an average of 22% and 31%, respectively. Only 3% graded "blighted" as compared with 5% in 1938 and 6% for the 5-year average.

OATS: The 1939 crop of oats east of the Rocky Mountains is somewhat lower in quality than last year in many important producing areas, because of foreign material and stained or weathered oats.

Only 1% of the receipts was graded as "thin oats," 27% of the inspected receipts graded No. 2 or better, with 35% grading lower than No. 3; this compares with 33% and 26%, respectively, in 1938 and 36% and 26%, respectively, for the 5-year average.

RYE: The 1939 rye crop is of low quality as compared with 1938 and with the average from 1934 to 1938, inclusive. Fifty-three percent of the receipts from July through September graded No. 2 or better, with 10% grading lower than No. 3. This compares with 81% and 3%, respectively, in 1938 and 68% and 6%, respectively, for the 5-year average.

Chicago, Ill.—The American Corn Millers Federation is seeking an increase in the acreage devoted to white corn. Its newly inaugurated campaign features broadcasting over four radio stations in the corn belt and advertising in two leading farm publications.

Capacities of Eastern Canada Elevators

In List No. 2, issued Nov. 9, by the license and bonding branch of the Board of Grain Commissioners for Canada, and cancelling List No. 1 issued earlier this year, the board shows the following houses, with their capacities in bus, as having been licensed under the Canada Grain Act of 1930, to operate during the season 1939-40, which season ends on July 31, next year:

ONTARIO: Collingwood, Collingwood Terminals, Ltd., *2,000,000 bus.; Depot Harbour, William H. Johnson, Jr., Ltd., *1,600,000; Goderich, Goderich Elevator & Transit Co., Ltd., *3,000,000, and Western Canada Flour Mills Co., Ltd., 600,000; Kingston, James Richardson & Sons, Ltd., *250,000, and Kingston Elevator Co., Ltd., *2,500,000; Midland Canada Steamship Lines, Ltd., *4,000,000, and Midland Simcoe Elevator Co., Ltd., 4,250,000; Midland (Tiffin), Canada National Railway Co., 4,500,000, and Aberdeen Elevator Co., Ltd., 900,000; Owen Sound, The Great Lakes Elevator Co., Ltd., *4,000,000; Port McNicoll, Canadian Pacific Railway, 6,500,000; Port Colborne, National Harbours Board, *3,000,000, and Maple Leaf Milling Co., Ltd., *2,250,000; Prescott, National Harbours Board, *5,500,000; Sarnia, Sarnia Elevator Co., Ltd., *3,000,000; Toronto, Toronto Elevators, Ltd., *4,000,000.

QUEBEC: Montreal, Ogilvie Flour Mills Co., Ltd., with *625,000, National Harbours Board No. 1, with *4,000,000, National Harbours Board No. 2, with *2,622,000, National Harbours Board No. 3 with *5,000,000, National Harbours Board "B" with *3,500,000, and Dominion Elevator, Ltd., with *750,000; Quebec, National Harbours Board, *4,000,000; Sorel, North American Elevators, Ltd., *3,000,000; Three Rivers, Three Rivers Grain & Elevator Co., Ltd., *2,000,000.

NEW BRUNSWICK: St. John, Canadian National Railway Co., 500,000; West St. John, Canadian Pacific Railway, 1,000,000 and 1,576,800.

NOVA SCOTIA: Halifax, National Harbours Board, 2,200,000.

Of the foregoing licensed elevators those in Ontario have total capacity for 51,850,000 bus; those in Quebec, 25,537,000; those in New Brunswick, 3,076,800; the one in Nova Scotia, 2,200,000, making a grand total of 82,663,800 bus. licensed storage capacity in the four provinces.

*Indicates conditional license.

Gov. Lloyd C. Stark of Missouri has been given the third annual award of the Accredited Publicity Directors, Inc., for his "outstanding work in the elimination of trade barriers" between states.

Change in Management of S-W Department

Mr. A. Omar Hodges becomes manager of the Southwestern Department of The Mill Mutuals effective Jan. 1, 1940. His entire business life has been spent with this department. He was first employed in 1916 and his service has been continuous except for the period he was overseas in military service in the World War. He has been field service representative and field service superintendent and since 1927 has been assistant manager.

Mr. Kit Wilson becomes assistant manager. He has been with the department since 1934. He has devoted his business life to the fire insurance business and has held important and responsible positions with prominent fire insurance companies in the Southwest since the early part of the present century.

Leslie C. Gray retires as manager after sixteen years of service. His duties after Jan. 1, 1940, will be advisory. He becomes chairman of the board of the com'te of Mill Mutual Co. executives that supervise in an advisory way the operations of the department.

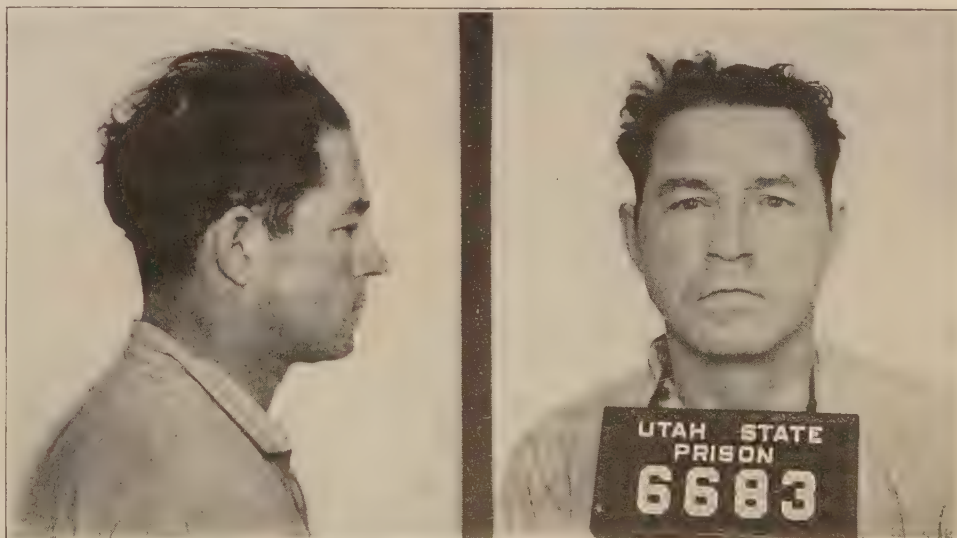
A grind of 6,332,924 bus. of corn during November for products going into domestic use, is reported by the Corn Industries Research Foundation, for 11 refiners of starches, sugars, syrups, and other corn products. This compares with 8,113,487 bus. in October; 5,973,647 in November, a year ago.

Another Fire Bug in Durance Vile

The many fires started on the Pacific Coast by the disciples of arson and sabotage has caused great uneasiness among the owners of all classes of property. Fortunately greater vigilance prevails among the officers of the law and many new as well as old offenders are being apprehended.

In January, 1938, we advertised for the arrest of Clifford Bramble, alias Clifford Burns, Clifford Mathis and Millon Dean, who had been arrested for setting \$2,000,000 fires in Sacramento and in Salt Lake City where he admitted setting fire to the Colorado Mill and Elevator and the Wacker Feeds & Fuel Co. He was sentenced to the penitentiary but escaped.

He was at liberty until late last month when he was again arrested in Kansas City and taken to Sacramento, Calif., where he will no doubt be convicted for burglary and arson. His record since June, 1915, disclosed a continuous life of crime and imprisonment, in fact his criminal tendencies are now so well known he is likely to get a long term behind the bars.



Clifford Bramble, Arsonist.

Field Seeds

Sioux Falls, S. D.—New seed cleaning machinery has been installed by General Sales, Inc., and is now in operation.

Sioux City, Ia.—The Michael Seed Store, owned by Berkeley Michael, suffered \$3,500 damage from fire Dec. 19.

Nebraska City, Neb.—Ray Edmund Frederick, age 46 years, of Frederick Seed Co., passed away at his home Dec. 8, following a year of illness from high blood pressure.

Pittsburg, Kan.—The Kelso Seed Co.'s plant was destroyed by fire Dec. 17, the loss of several thousand dollars being covered partially by insurance. Plans for rebuilding are being made.

Palouse, Wash.—R. W. Wallace, aged 53 years, died Dec. 6 in a hospital at Lewiston, Idaho, of heart disease. He came from Weiser, Idaho, in 1931, and established the Wallace Grain & Pea Co. to handle dried seed peas.

Chicago, Ill.—L. A. Moore, of the Illinois Department of Agriculture, was elected president of the Seed Council of North America during the Council's annual meeting in Chicago, Dec. 6. E. D. Holden, Wisconsin College of Agriculture, was elected sec'y-treasurer.

Chicago, Ill.—John S. Pye, age 65, was struck by an automobile and killed north of Joliet Dec. 13. He was employed in the seed business of Chas. A. Heath, had been with the Albert Dickinson Co. for many years and at one time in the seed brokerage business on his own account.

Richmond, Va.—Stephen Taylor Beveridge, head of S. T. Beveridge & Co., seed and feed dealers, passed away Dec. 15, after two weeks of illness. He was in the grain business with Charles L. Todd and later in the wholesale grocery business, before entering the seed and feed business.

Missouri's seed law requires retailers to have a permit to sell seeds. Sec'y A. H. Meinershagen, of the Missouri Grain Feed & Millers Ass'n, urges grain dealers who handle seeds to send their applications to the Commissioner of Agriculture, Jefferson City, with check for \$1, for a "Seedsman's Permit."

Flax and malting barley schools will be conducted in Minnesota during January by the agricultural extension department of Minnesota University Farm. Information will be disseminated on varieties, and growing and harvesting practices, with an eye to improvement of quality and an increase in yields.

Physical characteristics of seeds are being studied by the agricultural engineering division of Illinois Agricultural Experiment Station to determine the limits of separation possible when given characteristics are used as the basis of separation. Being sought are characteristics that are constant for a given kind of seed.

A strong demand for spring barley seed is showing up among Kansas elevators. Elevators that have spring barley seed available should find a ready market since the A.A.A. is paying wheat farmers handsome benefits to reduce acreage of wheat, at the same time allowing them to plant barley as a substitute to supply a home feed crop. Barley is favored over rye for a feed crop on acreage taken out of wheat production, because it is less likely to mix with and degrade the market value of wheat. Barley, if it does get mixed with wheat, can be easily separated.

Uniform State Seed Laws Urged by State Officials

Uniform state seed laws were urged by members of the seed com'te of the Ass'n of Commissioners & Sec'ys of Agriculture at a recent meeting in Chicago. Pointing out that the federal seed act "seems to afford adequate protection to prospective purchaser in judging the value and adaptability of seed," the com'te adopted a resolution stating:

Resolved, that this ass'n recommends that the various state seed laws and regulations be amended to conform, so far as possible, to the Federal Seed Act, and that conflicting state requirements be eliminated. And be it further

Resolved, that the U. S. Department be requested to draft and send to the states a model seed law as a pattern for uniform state legislation. And be it further

Resolved, that the sec'y of this ass'n be authorized and requested to advise the various state seed law administrators of the action of this ass'n, and urge each state to comply with these recommendations.

J. C. Mohler, sec'y of the Kansas State Board of Agriculture, Topeka, Kans., com'te chairman, said:

One objective of the recently enacted Federal Seed Act was to enable seeds to freely move in the commerce of the country under uniform requirements. This accomplishment would be of great assistance to seedsmen and others doing an interstate business in seeds, and can be done without diminishing the protection given to the farmer by seed laws.

Frequency of Weed Seeds in Illinois Seed Samples

The seed inspection service of the Illinois Division of Plant Industry analyzed 21,053 samples of seeds of 37 different crops during the fiscal year ending June 30, finding 2,482 of these unsalable. A 3.2 per cent increase in the percentage of unsalable samples was attributed to the many samples of red clover seed received direct from farmers whose cleaning machinery is often inadequate.

Only 191 official samples picked up by inspectors were analyzed during the year. This is a smaller number than in former years. Since inspectors brought in samples only of lots that appeared to violate the Illinois seed law, the smaller number indicated excellent cooperation by Illinois seedsmen in enforcing the law.

The frequency with which noxious weed seeds were found in submitted samples of seed appears in tables prepared by the Division of Plant Industry. These show dock appeared in 22.139% of the samples, buckhorn in 19.67%, bull nettle in 15.597%, dodder in 7.751%. Similar calculations on common weed seeds showed ragweed seeds in 23.25% of the samples, green foxtail in 22.90%, smartweed in 21.58%, yellow foxtail in 19.77%, witch grass in 19.59%, crab grass in 16.30%, spurge in 13.64%, pigweed

in 11.13%, spiny sida in 10.85%. Other common weed seeds appeared in less than 10% of the samples submitted.

Popular Indiana Corn Inbreds

Two corn inbreds developed at the Purdue University Agricultural Experiment Station, Wf9 and 38-11, when combined as a single cross, produced a seed ear of high quality that had the depth and width of grain, and ear characteristics of Reid yellow dent. Because of this similarity it was possible for this relatively new hybrid seed parent to compete successfully with Reid yellow dent, Johnson County white and other open pollinated varieties.

Limited supplies of seed have prevented widespread use of Wf9x38-11 in earlier shows. It was used as the seed parent this year by C. E. Troyer of Wabash County, exhibitor of the championship sample at the International Grain and Seed Show in Chicago.

Seed Ass'n Officers Re-elected in South Carolina

All officers were re-elected at the annual convention of the South Carolina Seedsmen's ass'n, in Columbia, Dec. 14-15. They are: J. B. Smoak, Orangeburg, pres.; Edw. H. Hanna, Gifford, vice-president; L. H. Mixon, Jr., Charlestown, sec'y-treasurer.

A. J. RILEY, of the Sand Hills Experiment Station, talked on crotalaria; Dr. George J. Wilds, Hartsville, S. C., on breeding of cotton and grain.

WM. P. WOOD, JR., Richmond, Va., discussed the effect of the new federal seed act on South Carolina dealers and growers.

FRANK S. LOVE, sec'y Southern Seedsmen's Ass'n, talked on ass'n affairs, and anticipated no sharp increase in seed prices except on a few short lines.

New York Holds a School for Seed Growers

Cornell University, at Ithaca, N. Y., held its first annual school for seed growers on Dec. 14, and 15, under the sponsorship of the New York Seed Improvement Cooperative Ass'n.

L. R. Simons, director of extension service, for the state colleges of agriculture, welcomed the seed growers. Prominent speakers were Bruce P. Jones, Hall, on the functions, rules, and regulations of the seed improvement ass'n; O. S. Fisher, of the U. S. Department of Agriculture, on seed certifying agencies, and Prof. M. T. Munn, of the state agricultural experiment station, on the new federal seed act, and New York state seed laws.

In an open forum, members of the seed improvement ass'n discussed contract growing of seed in other states, with particular reference to hybrid seed corn.

Perilla Grown in Illinois

Perilla has been grown successfully at experiment station fields in southern Illinois. Its promise is causing a continuation of studies on its production.

Perilla is attracting a good deal of attention in this country as a source of a very fine oil that is being used as a blend with soybean oil in paint. It is a coarse annual plant of India, Japan, and China, where it is cultivated for its seed. Attaining a height of 2 to 4 feet and having a tendency to branch when not crowded, the plant thrives best in sandy or sandy loam soils of average fertility. The crop requires a relatively long growing season. It resists light frost but is damaged by heavy frosts. Hence it is best adapted to the southern and southwestern states.

Best results in growing perilla showed in the field at Unionville, where the Ocymoides (Yokohama) variety yielded 207 lbs. of seed from a first seeding made on Apr. 23 and 366 lbs. from a second seeding made on Apr. 30, in 1937.

Directory

Grass & Field Seed Dealers

CRAWFORDSVILLE, IND.

Crahbs, Reynolds, Taylor Co., clover, timothy.

ST. LOUIS, MO.

Mangelsdorf & Bro., Ed. F., wholesale field seeds.

DeBroux Elected to Head Wisconsin Seedsmen

E. J. DEBROUX, of Valders Elevator Co., Valders, was elected president for the ensuing year at the annual convention of the Wisconsin Seed Dealers Ass'n, held in the Raulf Hotel, Oshkosh, Dec. 8. C. Q. Dunlop, Milwaukee, was elected vice-president; J. W. Jung, Randolph, sec'y-treasurer.

Annual dues of the ass'n were reduced from \$5 to \$2 in order to win new members.

FLINT JONES, Fond du Lac, Wis., farmer, discussed the effect of the 1940 A.A.A. Soil Conservation Program on farmers and seedsmen.

E. D. HOLDEN, Madison, Wisconsin College of Agriculture, reviewed efforts of the Wisconsin Experiment Ass'n to improve seed varieties, explained the relationship of the ass'n to the Wisconsin Experiment Station, and the seed certification plan which is producing better seeds for Wisconsin farmers. A seed improvement program for grasses and legumes is the latest to be undertaken.

PROF. A. H. WRIGHT, of Wisconsin College of Agriculture, dealt with hybrid corn, emphatically denouncing the peddler method of distribution. Wisconsin farmers paid over \$1,000,000 for hybrid seed corn last year, he said. He anticipated a permanent program of hybrid seed corn development.

HENRY LUNZ, head of Wisconsin's seed inspection laboratory, believed no changes would be made in Wisconsin's seed regulations until the final draft of the present regulations for enforcement of the federal seed act have been definitely approved. Changes have been proposed, however, and the ass'n set up a legislative com'te of six members.

FRED KELLOGG, Milwaukee, explained anticipated effects of the federal seed act on country shippers and retail dealers. Said Mr. Kellogg:

Wisconsin seed dealers have conscientiously observed the requirements of Wisconsin's seed law, a law far more strict about noxious weeds than are most state seed laws. The noxious weed seed content of seeds distributed by responsible seedsmen in Wisconsin is lower than anywhere else in the world.

In the past, too much weed-infested seed has been dumped upon unsuspecting Wisconsin farmers in interstate commerce, which would be forbidden by the Wisconsin law, if it applied to interstate shipments. Under the new law, all seeds transported in interstate commerce, must meet the noxious weed seed requirements of the law of the state into which they are destined.

Should this provision be held to apply to seeds brought into the state by farmers from bargain seed houses in neighboring states, retail seedsmen in Wisconsin will rejoice. Wisconsin farmers often get into a truck and drive across the river to buy their seeds at bargain prices. Possibly the owner of the truck could be held to violate the new federal law, when he transports any seed for his passengers, which does not meet legal requirements. This will depend upon official construction of the term, 'transports or offers for transportation' in interstate commerce.

"Now, because this country is so huge in size, the difficulties of adequate, effective, official

enforcement of an act such as this, are apparent. For a great many years, the irresponsible and dishonest element in seed distribution, has had an open season in which to mislead and defraud unsuspecting farmers. The regulations provide suitable measures to rid the industry of the unlawful practices, which have made it quite impossible to merchandise high quality seed, honestly represented, and make ends meet.

It is both a privilege and the duty of every decent seedsmen to seize this opportunity to report every flagrant misrepresentation, false advertisement, or other flagrant violation that may come to his notice. The excellent purposes of the legislation will be accomplished, but the process can be hastened if reliable seed dealers will cooperate whole-heartedly.

Best Hybrids Outyield Open-Pollinated Corn in Illinois

The five highest yielding hybrids exceeded the five best open pollinated varieties by 13.9 bus. of sound corn, as an average of results on all the test fields in Illinois in 1936. This represents a superiority of more than 44%. Tests on soils differing in fertility showed hybrids do best on good land. They vary in their capacity to yield on soils low in fertility. A few, however, performed unusually well on soils differing widely in fertility.

Comparisons are of increasing importance because expansion in the production of seed of hybrid corn is continuing at a rapid rate. New hybrids representing untried combinations of inbred lines are being made in large numbers. Information on the worth of these hybrids and data on the area of the state to which they are adapted are necessary in the corn-improvement program.

Corn-performance tests were conducted in fields at 18 different places in Illinois. These ranged from Stockton in the north-western part and Mundein in the northeastern to Albion in the southeastern part of the state.

Of the 234 different kinds of corn grown, 194 were hybrid and 38 were open-pollinated.

Selection Develops High Protein and High Oil Corn

Fortieth-generation results from a long time experiment in selection of open pollinated seed corn for protein and oil content have been announced by the Illinois Agricultural Experiment Station.

The experiment began in 1896 with Burr White corn that analyzed 10.92% protein and 4.70% oil. Continuous selection of those ears analyzing highest or lowest in protein or highest or lowest in oil in each successive generation, has developed four strains, i.e., Illinois High Protein, Illinois Low Protein, Illinois High Oil, and Illinois Low Oil.

A summary of the 1936 results from the experiment which is now under the direction of C. M. Woodworth and W. J. Mumm, of the plant breeding division, Illinois Agricultural Experiment Station, arbitrarily sets the original analysis of the variety in 1896 as 100% and shows the following results:

Strain	Analysis	Ratio to original analysis
High Protein	21.63% protein	198.1
Low Protein	9.61% protein	88.0
High Oil	10.14% oil	215.8
Low Oil	1.24% oil	26.4

These percentages are averages of 60 ears in each case. The analyses are affected greatly by seasonal growth conditions. As compared with 1935 results, the protein content in the 1936 crop was higher and the oil content lower. The season of 1936 was relatively dry; that of 1935, relatively wet.

Ohio Dealers Re-elect McCullough

Delegates to the annual meeting of the Ohio Seed Dealers Ass'n in the Neil House, Columbus, Dec. 5, re-elected H. Trimble McCullough, Cincinnati, to head the ass'n for another year. Randolph Norwood, Wapakoneta, was elected sec'y.

PRESIDENT McCULLOUGH originated a plan for bringing retail seed dealers into the ass'n as active members, by demonstrating to them the benefits membership will bring. The plan has doubled the membership. A new membership drive is being initiated to bring all seedsmen in the state into the ass'n.

Important subjects discussed at the meeting were the new federal seed law, and its relationship to the Ohio seed law; and ways and means for promoting the sale of recleaned seeds thru education of farmers to their real value.

Tenmarq Wins Honors as Milling Wheat

Tenmarq wheat, a leading hard red winter variety from the Southwest, took top honors as a milling wheat in the annual wheat milling and baking contest which is a subdivision of the annual International Grain & Hay Show, held in connection with the International Livestock Exposition, in Chicago.

A com'te of cereal technologists made the milling and baking tests of the 17 entries of North American wheats and 8 Argentine wheats in the contest, in the W. E. Long Co. laboratories at Chicago.

The samples were scored 80% for their milling and baking value; 20% for their external appearance. In the combination judgment of two com'tes covering the two factors, the samples placed as follows:

SOUTHWESTERN U. S. HARD RED WINTER WHEATS

Place	Variety	Grower	Address
1—	Tenmarq	Clarence Fulton, Harper, Kansas.	
2—	Tenmarq	H. E. Magraw, Montrose, Colo.	
3—	Hard	Harry Schmidt, Wray, Colo.	
4—	Kanred	Albert Weaver, Bird City, Kansas.	
5—	Tenmarq	Theodore Kropp, Spearville, Kansas.	
6—	Tenmarq	D. V. Nelson, Goltry, Okla.	
7—	Tenmarq	W. H. Crawford, Grandfield, Okla.	
8—	Tenmarq	Floyd Tauson, Grandfield, Okla.	
9—	Nebred	William Dunlay, Orleans, Neb.	
10—	Nebred	Chester Grau, David City, Neb.	
11—	Turkey	Everett Berkhead, Beloit, Kansas.	
12—	Nebred	Roy Pearson, Orleans, Neb.	
13—	Turkey	E. A. Matter, Hooker, Okla.	
14—	Turkey	Minor Simms, Panhandle, Texas.	
15—	Tenmarq	A. W. So Relle, Amarillo, Texas.	
16—	Turkey	Asa R. Payne, McDonald, Kansas.	
17—	Cheyenne	Reynolds Land Co., Madrid, Neb.	

ARGENTINA WINTER WHEATS

1—	Otto Wulff	Sommo Hnos, Serrano, F. C. P., Argentina.
2—	Lin Calel-Duro	Julio Schines, Medanos, F. C. S., Argentina.
3—	Sinvalcho-Duro	Domingo Cremanti, F. Tiberio, F. C. P., Argentina.
4—	K. Acero-Semiduro	Teodosio Pafundo, Sero-dino, F. C. C. A., Argentina.
5—	38 M. A. Semiduro	Ballore Hnos, La Fran-cia, F. C. C. A., Argentina.
6—	Klein 33-Semiduro	Bartolome Depetris, El Trebol, F. C. C. A., Argentina.
7—	Piramide-Duro	Traverso Hinos y Centi, Junin, F. C. P., Argentina.
8—	Guatrache-Duro	Antonio Campana, Cope-tonas, F. C. S., Argentina.

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CRABBS REYNOLDS TAYLOR CO.
CRAWFORDSVILLE, IND.

GRAIN

Clover and Timothy Seeds

Get in Touch With Us

Production of Grass Seeds

Seed production annually as reported by the U. S. Dept. of Agriculture has been as follows, in thousands:

	Red and Alsike Clover	Sweet Clover	Timothy	Alfalfa	Les-pedeza
	bus.	bus.	bus.	bus.	lbs.
1939....	2,018	1,352	1,413	1,358	138,975
1938....	2,204	914	1,494	998	189,210
1937....	781	954	2,350	944	99,165
1936....	1,172	770	927	888	38,364
1935....	1,170	699	4,197	1,012	60,510
1934....	1,050	626	261	820	47,830
1933....	1,474	709	835	1,025	65,980

ED. F. MANGELSDORF & BRO.

Buyers and sellers of

Sweet Clover, Alfalfa, Lespedeza, Clovers, Timothy, Grasses, Fodder, Seeds, Sudan Grass, Soy Beans, Cow Peas
St. Louis, Missouri

Grain Carriers

I.C.C. Docket No. 28340 proposes general revision of rates from Idaho to Pacific Coast destinations, including California. Idaho complainants are asking the I.C.C. to prescribe thru overhead rates from Idaho points of origin to California points via Seattle and Portland.

Kansas City, Mo.—Charges for cooping and switching cars in set-back service are unreasonable to the extent that they exceed 66c per car, decided the Missouri Public Service Commission when it dismissed a complaint of the Kansas City Board of Trade. The decision reduces total charges for these services to \$3.14 per car, instead of \$4.96, the latter being made up of \$2.48 for cooping and \$2.48 for switching. The order becomes effective Feb. 1.

New York, N. Y.—As of Dec. 15, 2,429 cars of grain stood on tracks in the metropolitan area awaiting transportation abroad. Grain elevators in and around the New York Harbor held another 2,492,000 bus. earmarked for export. Grain carrying vessels in the harbor held additional 5,030,000 bus. The congestion worried the railroads enough to cause the Ass'n of American Railroads to detail C. C. Randall, its "trouble-shooter," to the New York area.

Buffalo, N. Y.—Barges on the State Barge Canal carried only 6,408,159 bushels of grain out of Buffalo this year, a new low according to records which go back to 1921. Railroads, on the other hand, which have trailed the canal in grain shipments in the last 10 years, except for 1937, have passed the 46,000,000-bu. mark in export grain carried to the Atlantic seaboard this year. This is the highest since 1928 when 82,276,000 bus. of export grain were moved out of Buffalo by rail.—G.E.T.

Des Moines, Ia.—Chances for an early reduction in freight rates from parts of Iowa to western states are small, says Sec'y Ron Kennedy, of the Western Grain & Feed Dealers Ass'n. While carriers have expressed a desire to adjust the boundaries of the originating area from which reduced rates are allowed to take in a greater share of the state, the Interstate Commerce Commission is accused of impeding prompt action by delaying handling of the petition of the railroads.

Freight rate reductions of 20 to 25 per cent on corn, oats, barley and sorghum grains, and some of the products thereof, became effective Dec. 18 on Kansas intrastate traffic. The rates are for single line application only, except from a part of the north Kansas lines of the Missouri Pacific to the south Kansas lines of the same road, applying via Beloit on the Union Pacific, and Salina or McPherson to the Missouri Pacific. One transit privilege for storing or processing is allowed. These reductions, a part of the general reductions anticipated for this territory on interstate traffic thru a hearing to be held in Chicago, Jan. 3, before the Interstate Commerce Commission, expire June 30, 1940.

The Inland Waterways Corp. has announced it will move its executive offices from Washington, D. C., to St. Louis, Mo.

The Interstate Commerce Commission has approved modification of Ex Parte No. MC-9. Under it all filed contracts of contract motor carriers will be available to public inspection on and after Apr. 1, 1940.

Grain and grain products were loaded into 38,310 cars during the week ended Dec. 9, compared with 34,413 during the same week a year ago, and 34,588 during the same week in 1937, reports the Ass'n of American Railroads.

Sault Ste. Marie, Mich.—With the lakes still free of ice, the St. Mary's canal closed one of the busiest seasons in its history on Dec. 14, when it locked down Steamers Seccord and Bricoldoc, carrying grain from Fort William, Ont.

Reduced Rates for Trainloads Allowed by I.C.C.

A rate of 15c per cwt. on blackstrap molasses, in tank cars, from New Orleans and Harvey, La., to Peoria and Pekin, Ill., subject to a minimum of 1,800 tons, or 38½ tank car loads, has been approved by the Interstate Commerce Commission.

This rate is 2½c under the regular single carload rate, but only 1c per cwt. above the proposal of participating railroads.

Railroad officials hailed the decision as a great victory. It establishes the principle of trainload rates. It enables the railroads to compete with barges for long hauls of large quantities. Said the commission:

We find that there is nothing unlawful in the establishment of railroad rates on a quantity larger than a carload, when moving as a single shipment, where, as here, they are designed to meet competition from other modes of transport whose unit of transportation is not limited to single carloads, provided a just and reasonable relation in rates as between the larger and smaller quantities of the same traffic is maintained.

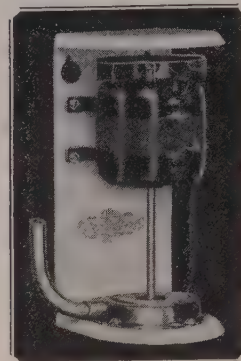
Railroads affected by the decision include the Yazoo & Mississippi Railroad, a subsidiary of the Illinois Central; the Missouri Pacific and its Texas & Pacific subsidiary; the Illinois Terminal, subsidiary of the Illinois-Iowa Power Co.; the Chicago & Illinois Midland, subsidiary of the Commonwealth Edison Co.; the C. & A., subsidiary of the Baltimore & Ohio; the Wabash, which is under control of the Pennsylvania, and the Illinois Central.

Allied Mills, Inc., has completed negotiations to acquire 133,780 shares of its no par common stock, held by the Corn Products Refining Co. The acquired stock will be held in the treasury of Allied Mills, reducing its outstanding stock from 946,000 to 812,220 shares.

Higher wheat prices during December are indicated by the poor condition of the growing winter wheat crop, the usual seasonal trend in wheat prices during December, improving business activity, and the possibility of revival of speculative interest. However, domestic prices are approaching an import basis, and price increases are expected to be small unless there should be some advances in Canadian and Argentine markets.—Economics Dept. Kansas State College.

A New Small Pump

Terminal elevators provided with a sump sink and country elevators troubled with water around the boot pit will welcome the new pump made of stainless steel and mounted on a



Corrosion Resisting Pump.

vitreous porcelain enameled stand developed by the Air-O-Line Co.

The low cost pump is very efficient and is made in three sizes ranging from 140 to 360 gallons per hour.

New Rotor for Motors

A new rotor, called the Valv-amp rotor, produces overall characteristics superior to those obtained from the conventional double squirrel cage construction having the same quantity of active material.

By reversing certain punchings during assembly the axial continuity of neck connecting inner and outer squirrel cage windings is broken up and the effect is equivalent to having a "valve" built into the rotor.

As a result of this development the range of ratings of high starting torque, low starting current motors having cast rotors was extended upward, bringing for the first time to the larger sizes of these G. E. Motors the permanent electrical characteristics, simplicity of construction, low maintenance, and long life of the cast rotor.

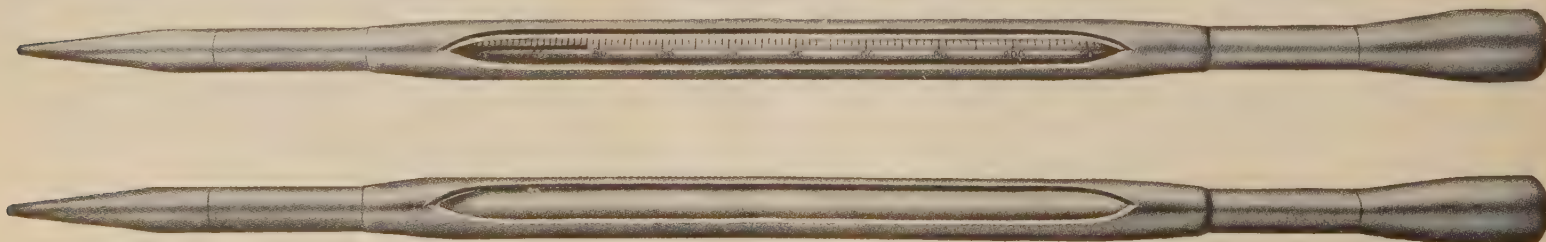
Grain Thermometer

The temperature of grain heaped in a pile or stored in a bin is readily ascertainable by means of the thermometer shown in the engraving herewith as protected by a metal shield.

At one end of the shield is the point to be thrust into the grain and at the other end is a ¾ inch coupling for connection to iron pipe extensions. Couplings also may be furnished for both ends, enabling the operator to place thermometers at spaced intervals to obtain temperature readings at several different points in the pile or bin of grain.

The engraving shows the thermometer in two positions, one exposed to view and the other turned so as to be completely covered and protected. Thermometers are also supplied without the shield.

The shield is made up on steel armor, plated successively with copper, nickel and chromium so as to be rust-proof. The high-grade glass thermometer assembled therein is padded with cushions to hold the thermometer in place. This aid to the elevator man holding grain in store is made by the A. A. Wood & Sons Co.



New probe-type grain thermometer.

Wheat Variety Tests in Kansas

A. L. Clapp, H. D. Hollembeak and C. D. Davis of the department of agronomy of the Kansas Agricultural Experiment Station at Manhattan, Kan., have reported on the co-operative wheat variety tests made in 1939.

Seed for 86 co-operative wheat variety tests were furnished to 79 counties in the fall of 1938. Yields were secured from 62 of these tests located in 57 counties. Ten tests were not seeded because of lack of moisture or other factors and 14 tests were failures from such causes as drouth, wind, hail, grasshoppers, and harvesting of tests before yield samples were secured.

With the exception of limited areas, wheat made a fair growth last fall but began to suffer in the spring from a lack of moisture in the north-central and southwest portions of the state. Early-seeded wheat exhausted the moisture supply and was severely damaged or completely destroyed by drouth. Wheat planted at the normal seeding date or later did not make much fall growth but made a higher yield because of a lower moisture requirement.

Neither stem rust (*Puccinia graminis tritici*) nor leaf rust (*Puccinia triticina*) caused any appreciable damage to the 1939 wheat crop in Kansas, but chinch bugs were a factor in some eastern counties. Early Blackhull and advanced plants of other varieties were damaged to some extent by frost as the heads were beginning to come into the boot.

In some areas there was considerable shattering as soon as the plants were ripe. Climatic factors were such that the grain was loosely held in the head in nearly all varieties. This resulted in more than usual shattering of those varieties, such as Kawvale and Iobred, which have a tendency to shatter after they ripen. Light to heavy hail storms were scattered generally over the state this year. Some of the tests harvested were slightly damaged by hail. Hail apparently damaged Kawvale more than other varieties by increasing the shattering.

Varieties.—Harvest Queen was not included in the tests in eastern Kansas, and Nebred was added in the north-central and northwest sections in 1939. With these two exceptions, the distribution of varieties was the same as in 1938. Turkey, Tenmarq, Chiefkan and Blackhull were included in all tests. Iobred was included in the northeast and Michigan Wonder, Clarkan and Kawvale were tested in the two eastern districts. Kawvale and Clarkan were tested as far west as eastern central Kansas. Kanred, Cheyenne and Early Blackhull were included in the tests located in the western half of the state.

Climatic conditions in different sections of the state vary greatly in their effect on the wheat crop. The best variety of wheat in one section of Kansas may not be satisfactory in another part of the state. Early maturity may be an advantage in the western sections of Kansas if it aids in evading drouth and hot winds. Extreme early maturity may mean ripening before maximum development is attained which would lower the possible yield. Winter hardness, which is an advantage in the northern sections of the state, is of less importance in southern Kansas. Because of these differences in the response of varieties to varying climatic and soil conditions, the wheat yields are summarized by sections. The area included in each section is so selected that growth conditions are rather similar throughout the section.

Recommendations.—Varieties of wheat differ in their response to variations in climatic conditions. An early-maturing variety may make the highest yield in some years when one of later maturity is damaged by rust, drouth or hot winds. In years of normal development, the comparative yields of the

two varieties might be reversed. Other factors similarly affect the yield of varieties with different characteristics. Because of this fact, it is not safe to recommend or discard a variety until it has been tested long enough to sample the climatic conditions likely to occur in the area under consideration.

A good example of this in 1939 is the performance of Kawvale in eastern Kansas. It has consistently outyielded the other varieties in this area and has produced the highest average yield over long periods, but this year it was outyielded by both Tenmarq and Clarkan.

For northeast Kansas, Kawvale may be recommended on the basis of yield. Kawvale, however, is a semihard variety which is not wanted by the soft wheat millers. Tenmarq may be grown where a typical hard winter wheat is desired, and Clarkan for a soft wheat. These recommendations will also apply to southeast Kansas. Both of these areas are typical soft wheat producing areas and from a marketing standpoint, as well as yield, Clarkan can probably be grown to the best advantage.

The eastern central section of the state is covered by a mixture of hard and soft wheats. There is little difference in the production of Kawvale and Tenmarq. For the production of a high quality hard wheat, Tenmarq might well be grown.

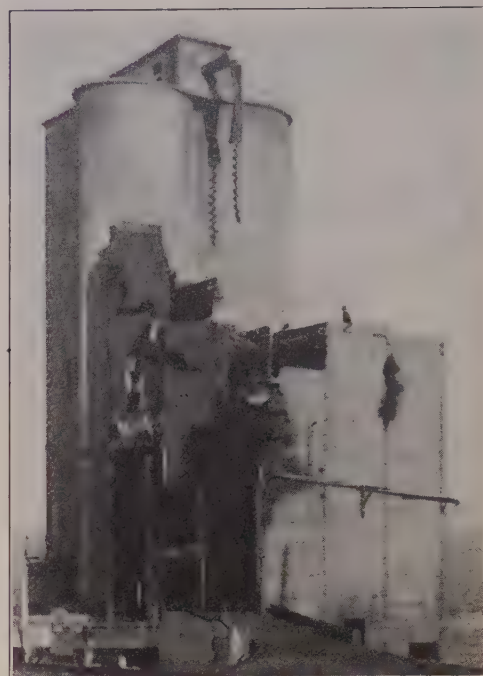
Northcentral Kansas seems to be an area where yields of all varieties are about alike Cheyenne, Tenmarq, Blackhull and Early Blackhull have a slight advantage over Turkey and Kanred. Cheyenne is more winter-hardy than Tenmarq.

Tenmarq can be definitely recommended for southcentral Kansas, even though it was outyielded by Early Blackhull, Turkey and Chiefkan in 1939.

The selection of a variety for northwest Kansas is also largely a matter of choice. The yields of Cheyenne, Early Blackhull and Tenmarq are practically identical while the yields of Kanred and Turkey are slightly lower. Both Early Blackhull and Tenmarq lack the winterhardness necessary to be safe in this section of the state, in some seasons.

Blackhull, Tenmarq or Early Blackhull may be grown to advantage in southwest Kansas. Early Blackhull frequently lodges and the quality of flour made from this variety is inferior. Early Blackhull is not on the list of varieties approved by Kansas State College and certified by the Kansas Crop Improvement Ass'n.

Punitive and discriminatory taxes on retail outlets like chain stores were severely condemned in a resolution adopted by the New Jersey State Grange at its annual convention in Atlantic City. Named in particular was the Patman bill to tax chain stores on a national basis.



Reinforced concrete of E. H. Morris Elevator at Evansville, Ind., is incorporated in plans for new plant.

Reinforced Concrete Will Replace Fire Destroyed Elevator

A two-hour fight by firemen failed to save the burning cribbed elevator of E. H. Morris at Evansville, Ind., on Oct. 21. It did keep the cribbed walls from tumbling down, but the fire-scarred cribbing was useless for practical elevator purposes.

Burning of his modern cribbed elevator left Robert Morris, operator, disgusted with wood construction. He immediately set workmen to tearing down burned cribbing and fire weakened timbers, preparing the site for erection of a new and larger elevator of reinforced concrete.

Contract for erection of the new elevator, incorporating the latest developments in elevator construction to satisfy changes in transportation and character of the grain business, was given to Reliance Construction Co. The new structure will make use of the two reinforced concrete storage tanks left unharmed by the fire, and of the Randolph direct heat drier these storage tanks serve.

The 13% discount on Canadian dollar defeats the \$2.50 per ton duty on hay from Quebec and Ontario into New England.

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OIL-ELECTRIC GRAIN DRIER

The Drier Without a Boiler

ASK THE MAN WHO HAS ONE

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Feeds & Feeding

by

F. B. Morrison

Fifth Printing

20th Edition

This edition has been entirely rewritten and revised to contain the latest information on live stock feeding and nutrition. Entirely new compilations of recent analyses of American feeds are presented in the Appendix Tables. Extensive data are presented concerning the mineral and vitamin content of important feeds.

The only authoritative book on the subject of animal feeds and feeding. The result of over 38 years of exhaustive work in experimentation.

Its three parts, each divided into numerous chapters, cover "Fundamentals of American Nutrition," "Feeding Stuff," "Feeding Farm Animals." This new edition contains approximately 40% more material than the 19th edition, and contains 1,050 pages, including 95 informative illustrations. This book will enable any grinder and mixer of feeds more intelligently to suggest and compound worth while rations. Beautifully bound in black keretol, durable covers; weight 5 pounds, price \$5.00 plus postage. Send for your copy now.

Grain & Feed Journals

Consolidated

332 S. La Salle St.

Chicago, Ill.

Feedstuffs

Dover, Del.—The Quarterly Bulletin of the State Board of Agriculture just issued contains a report on all samples of feeds, fertilizers and seeds for the first half of 1939. by H. H. Hanson, state chemist.

Sioux City, Ia.—W. F. Lorenz, Jr., operating as "Mid-States Yeast Co.," and as "Western Mills," has pleaded guilty to misbranding commercial feeds. State feed inspector O. N. LaFollette made the investigation developing court action.

Production of brewers' dried grains in November totalled 6,900 tons compared with the same figure in November, a year ago. Cumulative production since July totals 45,000 tons, compared with 42,300 tons in the same 5 month period last year.—Agricultural Marketing Service, U.S.D.A.

Production of distiller's dried grains in November was 13,300 tons, compared with 15,600 tons in the same month last year. Cumulative figures since July 1 are 53,800 tons, compared with 57,700 tons during the same 5-month period last year.—Agricultural Marketing Service, U.S.D.A.

Toledo, O.—Officials of Saunders Mills, Inc., were ordered to court early this month on charges by the Ohio Department of Agriculture that alfalfa meal shipped by the firm to Cincinnati failed to meet the protein and crude fiber statements printed on the bags in which it was shipped.

Wet process grindings for the domestic trade produced 52,247 tons of corn gluten feed and meal in November, compared with 54,017 tons in November, 1938, and sharply off from the heavy production in September and October, reports the Agricultural Marketing Service of the U. S. D. A.

Alfalfa meal production in November totalled 25,000 tons, compared with 22,000 tons in the same month of 1938. Cumulative production for the 6 months ending November was 183,000 tons, compared with 165,000 tons during the same 6-month period last year.—Agricultural Marketing Service, U.S.D.A.

Much larger than last year, the number of cattle on feed will equal or exceed the number on feed in any previous season. All of the increase is in seven states west of the Continental Divide, California and Arizona show the largest increases.—Agricultural Marketing Service, U. S. Department of Agriculture.

Topeka, Kan.—All the livestock in territory adjacent to Derby Sunflower stations are laughing out loud today. Their stockings were filled with "Derby Diet Hog Feed," "Derby Diet 16% Dairy Feed," and "Derby Egg Mash." The Derby Diet News is carrying pictures of the animal laughs which are so real you would almost want to try the feeds yourself.

Fort Wayne, Ind.—Russell Lehe, who for the past two years has been employed as Allied Mills, Inc., salesman in Northern Indiana, has been promoted and given a position in the advertising and sales promotion department. Mr. Lehe made an outstanding record as a salesman and in his new capacity will work with Wayne salesmen and dealers in developing advertising and sales promotion projects.

Washington, D. C.—Direct imports of bran, shorts and other wheat by-products feeds totaled 273,144 tons during the first 10 months of this year, of which 202,417 tons came from Canada, most of the re-

mainder from Argentina, Brazil and Mexico. This figure does not include 99,807 tons resulting from domestic milling-in-bond of Canadian wheat. The years 1931-35 saw imports of 145,000 tons on the average. In 1935 they jumped to 288,000; 1936, 270,000; 1937, 170,000; 1938, 27,826.

Feed Manufacturers Will Hold Convention in May

"Our board of directors," announces R. M. Field, president of the American Feed Manufacturers Ass'n, Chicago, "has decided that the next annual meeting of the ass'n shall be held at our old and familiar meeting place, the French Lick Springs Hotel, at French Lick, Ind., on Thursday and Friday, May 23 and 24.

"We have been to French Lick so many times, have been so well taken care of, and our recollections of the place are so pleasant, that we are quite sure all will approve the board's selection."

Molasses Electrically Heated for Feed Mixing

By D. H. CHITTOCK

[Submitted in a General Electric Industrial Heating Contest]

"Thicker than molasses in January" does not hold true for the C & S Farmers Exchange at Chagrin Falls, O. This concern has overcome the problem of heavy, thick, unworkable molasses not only in January but the rest of the colder months.

Molasses is used for a feed mix and sold to dairy farmers. Tank cars of approximately 6,000 gallons capacity are received in the early fall and spring. When the feed mixing process is begun, the molasses is taken from the storage pits and placed in a 50-gallon tank to be heated to a workable consistency.

The tank is equipped with three 230 volt G. E. Electric Immersion Heaters, a total of 9 Kw., complete with thermostatic control. Four fins of 18 gauge copper 8 inches high and 30 inches long, attached to each heating unit, provide an even transfer of heat at low temperature to prevent charring the molasses. Within 30 minutes the molasses is at 100 degrees F., the desired consistency for mixing. This temperature is maintained automatically.

It has been found that heating the molasses electrically speeds up the feed-mixing process, produces a better mixed feed and prevents unnecessary loss of molasses.

The amount of money saved in both labor and material with this new set-up is very gratifying to the owner. Prior to the time of installing electric heat, the molasses was heated with a system of steam coils; this of course would take several hours to bring the product up to a degree of temperature to make it workable; after this was accomplished a man was needed at all times to maintain the heat at somewhere around the proper degree, or the material would become too heavy or too light.

It also meant the customer would have to notify the company a day or two in advance if he wanted a molasses mixed feed.

All the guesswork and uncertainty has been taken out of the operation, with the use of electrically heated elements, and equally as important was the fact the customer would receive better service and a far better product. The equipment was inexpensive to install and is easy to operate.

Nitrogenous Compounds in Feeds

Protein has been considered the valuable ingredient in feeds, and the practice has been to obtain the protein from animal or vegetable origins.

It has been discovered that animals can make their own protein out of some nitrogenous chemical compounds; and the department of biochemistry of the College of Agriculture, University of Wisconsin, has conducted two separate experiments involving the utilization of urea and ammonium bicarbonate nitrogen with ten growing calves.

The experiments indicate definitely that such nitrogen can be used for at least a partial supply of protein nitrogen. The most probable explanation is the production of protein by bacterial cell multiplication in the rumen and later digestion in the fourth stomach and intestine. Apparently most efficient utilization occurs when some soluble sugar such as corn molasses is fed in the ration.

With urea nitrogen constituting 43 per cent of the nitrogen of the ration the growth rate was but slightly less than that resulting with a ration containing 66 per cent of its nitrogen as casein nitrogen. This does not imply that urea nitrogen in the ration used is superior to casein nitrogen.

Where casein nitrogen constituted 43 per cent of the total nitrogen of the ration, as in the case of animal No. 2, the growth rate over a period of 16 weeks was 1.5 pounds daily as compared with 1.3 pounds daily for the comparable level of urea nitrogen.

The nitrogen of ammonium bicarbonate was also utilized.

Analysis of the tissues at the end of the experiment indicated that the increments in weight with urea or ammonium bicarbonate nitrogen were of normal composition with a protein content similar to that of the casein fed animal. Extractable non-coagulable nitrogen was no greater in the leg tissues of the urea or ammonium bicarbonate animal than in the tissues of the casein animal.

Dr. Walter B. Griem at the recent convention of the Ass'n of Feed Control Officials, said:

"Long time experiment is still in progress with dairy cows. For this study on the effectiveness of the simple nitrogen compounds for milk production the cows are divided into four groups of six animals each. The basal grain ration is supplemented in this experiment with urea and with linseed meal. No results of this study have as yet been published.

"As control officials we should be cognizant of this development. The commercial application of this development in scientific feeding presents a special problem to us in our control work. We all know that urea nitrogen is cheaper than protein nitrogen from feed concentrates. Future experiments will very likely confirm the effectiveness of simple nitrogen compounds as partial substitutes for protein with the ruminant. Manufacturers of mixed feeds will naturally want to incorporate such compounds in their feeds.

"At this time it appears that the control problem, altho complicated, is not impossible. The simple nitrogen compounds would of course be limited to use in feeds for goats, sheep and cattle. The maximum percentages of additions to be permitted would need to be established. Label statements of percentages of protein would probably need to be supplemented with percentages of non-protein nitrogen. It is improbable that nitrates will ever be used as a supplement. This simplifies the control problem as ammoniacal nitrogen determinations can easily be made on water extracts of feeds. These extracts can also be easily analyzed for urea nitrogen.

"This whole subject, however, is still in an experimental stage. No experiment station has as yet made any recommendations. It is my suggestion, therefore, that we all reject regis-

trations of feeds containing urea or ammonium salts at least through the year 1940. This action would not prevent the feeder from purchasing such salts on the market for incorporation in custom formulas."

Cottonseed Meal v. Soybeans for Fattening Steers

With cottonseed meal at \$50 per ton, soybean meal at \$54, and whole soybeans at \$1.35 a bushel, workers at Purdue University found the beans made a satisfactory substitute for cottonseed meal in fattening two-year-old steers. Rate of gain was just as rapid and finish just as good when the beans were used as the protein concentrate. If beans can be grown or purchased at a lower price per pound than cottonseed meal, their use is justified, according to these authorities. Soybean oil meal likewise secured just as satisfactory results in a ration as were had from the use of cottonseed meal.

The amount of feed consumed daily per head is not materially affected by kind of concentrate fed fattening steers. Professors Skinner and King found little or no difference in this regard when comparing cottonseed meal, soybean meal,

whole soybeans or whole beans with a mineral mixture.

When cottonseed meal was compared directly to ground soybeans Professors Skinner and King report:

Cattle fed ground soybeans made more rapid gains than those fed cottonseed meal.

Gains on a given amount of feed were greater with ground soybeans than were realized on cattle in lots where cottonseed meal was the supplement.

Cattle fed ground soybeans were valued higher at the end of the period and profit per steer was greater when ground beans were supplied.

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Feed Prices

The following table shows the closing bid price each week for March futures of standard bran and gray shorts, spot cottonseed meal and No. 1 fine ground alfalfa meal, in dollars per ton, and No. 2 yellow corn and No. 2 yellow soybeans in cents per bushel:

	Minneapolis Spot		Kansas City	
	Bran	Midds	Bran	Shorts
Oct. 14.....	18.00	18.00	18.50	21.50
Oct. 21.....	18.50	18.50	18.95	22.00
Oct. 28.....	18.75	18.50	20.30	23.25
Nov. 4.....	21.00	21.00	20.95	24.00
Nov. 10.....	21.50	21.50	21.05	24.00
Nov. 18.....	21.00	21.00	20.50	23.65
Nov. 25.....	21.00	21.00	20.00	23.10
Dec. 2.....	21.00	21.00	20.10	23.65
Dec. 9.....	21.00	21.00	19.60	23.35
Dec. 16.....	20.50	20.50	20.60	23.75
Dec. 23.....	21.00	21.00	20.00	22.90

	*St. Louis		Chicago	
	Bran	Shorts	Soybeans	Meal
Oct. 14.....	21.50	23.60	85	27.20
Oct. 21.....	21.70	23.50	85	28.00
Oct. 28.....	23.50	25.25	91	28.20
Nov. 4.....	24.10	26.40	96 1/4	30.70
Nov. 10.....	23.85	26.25	97	32.20
Nov. 18.....	23.85	25.75	99 1/4	33.20
Nov. 25.....	23.20	25.50	100 3/4	34.20
Dec. 2.....	23.20	25.15	106 3/4	35.20
Dec. 9.....	22.90	25.00	108	35.20
Dec. 16.....	23.25	24.75	124	35.20
Dec. 23.....	23.10	24.60	115	34.00

	Cottonseed Meal		Kansas City	
	Ft. Worth	Memphis	Alfalfa	Corn
Oct. 14.....	34.00	25.00	23.50	51
Oct. 21.....	34.00	25.50	23.50	51 1/2
Oct. 28.....	33.00	25.50	22.40	49
Nov. 4.....	33.00	26.50	22.40	49 1/2
Nov. 10.....	33.00	28.00	22.40	50 1/2
Nov. 18.....	34.00	28.75	22.50	50 3/4
Nov. 25.....	34.00	28.75	22.50	51 1/4
Dec. 2.....	34.00	28.75	22.50	55 1/2
Dec. 9.....	35.00	29.00	24.00	55 1/2
Dec. 16.....	35.00	29.50	23.50	57 1/4
Dec. 23.....	35.00	30.00	23.50	57 1/4

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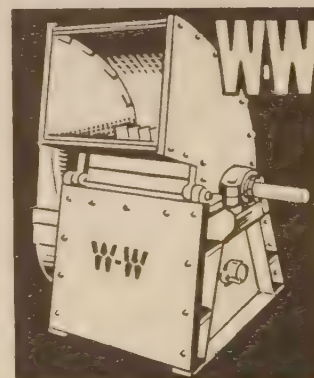
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Poultry Feeds and Feeding

To aid in increasing the general consumption of poultry products, the executive committee of the American Feed Manufacturers Ass'n has recommended appropriation of \$2,000 to help the first year's work of the National Poultry Industry Planning Com'te. An initial two-year budget of \$50,000 is planned by the latter.

The growth-stimulating effect of wheat germ oil may be attributed to some factor other than vitamin E, according to H. M. Evans and G. A. Emerson of the University of California. They treated wheat germ oil with ferric chloride so it contained about one-tenth the vitamin E activity of the original, then fed it to female rats, finding it nearly as effective as untreated oil in stimulating growth.

Chicks, ducks and turkeys develop entirely different pathological symptoms when fed the same deficient diet to establish nutritional encephalomalacia, according to a monograph in Storrs Station Bulletin 229 (1939) (Connecticut). Lesions are confined to the brain in chicks, to the skeletal muscles in ducks, to the smooth muscle of the gizzard in turkeys. A vitamin E concentrate is complete protection against this nutritional disease.

Recent Findings Concerning the Vitamin G Complex

By L. C. NORRIS, Cornell University, Ithaca, N. Y., at the Cornell Nutrition School.

The vitamin G complex, in so far as the feeding of poultry is concerned, consists of three components. These are riboflavin, pantothenic acid and the new Cornell growth and reproduction factor. Riboflavin is called vitamin G by many people and by some lactoflavin. Pantothenic acid is the new name for the anti-dermatosis vitamin or filtrate factor. The Cornell growth and reproduction factor is probably identical with "factor U" of Stokstad and Manning.

Riboflavin is required for growth, viability and hatchability. Chicks, when fed a ration deficient in riboflavin, frequently develop a paralysis of the toes and legs, called nutritional leg paralysis or curly toe disease. The paralysis is due to degeneration of the sciatic nerve. If the degree of degeneration is not great, recovery from the paralysis occurs spontaneously.

Pantothenic acid is also required for growth, viability and hatchability. When supplied a ration lacking in pantothenic acid, chicks develop a skin disease characterized by granular eyelids, scabby lesions at the corners of the mandibles and around the vent. The feathers are rough and staring. Occasionally the skin on the bottoms of the feet thickens and hardens and fine cracks appear. Due to degeneration of the nerve tissue in the spinal column, there may be a slight incoordination of gait.

The new Cornell growth and reproduction factor is required for growth and viability in chicks and for weight maintenance, egg production and hatchability in hens. Up to the present time no characteristic deficiency disease has been observed either in chicks or hens as a result of consuming a ration deficient in the new vitamin.

From the point of view of practical feeding, riboflavin appears to be the most important component of the vitamin G complex. This appears to be due to the fact that the requirement for pantothenic acid and for the new factor can be satisfied to a greater extent by means of grains and their by-products than can the requirement for riboflavin. In table herewith is given a list of feedstuffs which are relatively rich in one or more of these vitamins, or because of the use of large amounts in the ration are a practical source of supply. The com-

ponents of the vitamin G complex, it will be observed, are frequently associated together.

Information on the quantitative requirement for riboflavin can be obtained from Cornell University Experiment Station Bulletin No. 660, entitled, "The Vitamin G Requirement of Poultry." A discussion of the quantitative requirement for pantothenic acid is presented in California Agricultural Extension Service Circular No. 108, entitled, "Feeding Chickens." No information on the quantitative requirement for the new factor is available at the present time but a study of this problem is now in progress at the Cornell University Poultry Department.

Chief Sources of Components of Vitamin G Complex

	Ribo- flavin	Panto- thenic acid	New factor
Alfalfa meal	++	++	++
Cane molasses	0	++	0
Dried buttermilk ..	+++	++	++
Dried skim milk...	++	++	++
Dried whey	+++	++	++
Liver meal	+++	++	+++
Wheat by-products.	+++	++	+++
Yeast	+++	+++	+++

Explanation of table
0 Indicates none or no appreciable amount of vitamin.

++ Indicates increasing amounts of vitamin.

+++ Indicates lack of agreement on amount of vitamin.

Sources of Protein Compared in Studies with Chickens

Fish meal, meat scrap, and dried skim milk fought for top place in two extensive tests to determine the most efficient levels and sources of protein intake for chickens during the various stages of their growth. Conducted at the New Hampshire experiment station, conclusions from the experiment are drawn by A. E. Tepper, R. C. Durgin, and T. B. Charles, as follows:

Protein levels of 15, 17, and 19 per cent were used with fish meal, meat scrap, and dried skim milk, each separately and the three in combination, constituting the main source of protein. As the percentage of protein increased a definite increase in body weight of the chicks occurred. Those groups receiving the protein mixture or fish meal alone were definitely heavier at 12 weeks than those on comparable protein levels supplied by meat scrap or dried skim milk.

During the growing period (12-23 weeks) the groups on the lower protein levels were most efficient in feed utilization. The groups receiving fish meal as the sole source of animal protein produced a greater number of eggs per bird, had the lowest feed cost per dozen eggs produced, and were earliest in sexual maturity as measured by average days to first egg.

The percentage protein in the rations did not significantly influence age at sexual maturity

nor size of egg laid. No significant relationship was observed between mortality and the source of animal protein fed. The maximum amount of protein which could be supplied by meat scrap or dried skim milk was lower than in the case of fish meal. A ration containing 13 per cent of fish meal (19 per cent total protein) did not adversely affect the odor or flavor of either meat or eggs.

The F.C.I.C. held 11,619,714 bus. wheat Dec. 9 that can be sold only to pay indemnities.

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Vitamin Requirements in Poultry Feeding

By R. M. BETHKE,

Ohio Agricultural Experiment Station at
World's Poultry Congress

(Continued from page 504)

VITAMIN D IS SUNSHINE FACTOR.—Direct sunshine supplies vitamin D automatically to the human species and to poultry, as well as to other livestock. As soon as we remove them from direct sunshine exposure, we must assume the responsibility of supplying vitamin D.

As you know, the practical source and the most convenient way of doing it is by means of fish oil or fish oil equivalents. We should not lose sight of the fact that there are different forms of vitamin D.

STANDARDS OF QUALITY.—Not all of these forms of vitamin D are equally effective for poultry. Accordingly, we should exercise some care in the kind of oil that we are going to feed to our birds. Fortunately, there has been developed an official test for vitamin D, commonly referred to as a "chick test." You have probably seen the letters "A.O.A.C." on cod liver oil drumheads. That has reference to the official test.

From the majority of experimental work that has been reported on the vitamin D requirements of birds, I would say that the growing chick requires in the neighborhood of 175 chick units per pound of feed.

What does that mean in terms of fish oil? Let's take straight cod liver oil that is guaranteed to contain 85 units. If you used one-half of 1 per cent of that straight cod liver oil, you would meet the requirements. If you used a fortified oil which contained 400 units, two pounds of that fortified oil per ton of mash would supply 175 units per pound of feed.

Laying birds have at least two times the requirements of chicks. So I would say that your practical recommendation as far as laying birds are concerned would be in the neighborhood of 350 units per pound of feed, or you would have to add again as much oil in the case of laying birds as in the case of chicks.

VITAMIN G is one of our newer members. We know what it is chemically. The chemist calls it "riboflavin."

Vitamin G deficiency in chicks manifests itself in the form of a nutritional paralysis that can be easily recognized and distinguished from others, inasmuch as the chicks will walk on their hocks with the toes curled inward. It usually appears some time after the third week.

In the case of laying birds, a vitamin G deficiency results in decreased hatchability.

SOURCES OF VITAMIN G.—Vitamin G is present in eggs, especially if the birds are well fed. We find it in milk, milk products, succulent grass. If that grass is dehydrated and properly taken care of, we will preserve most of the vitamin G or riboflavin present. It is present in the alfalfa meals or alfalfa leaf meals.

According to work, it has been shown that chicks require in the neighborhood of 1300 units per pound. Laying birds, merely for egg production purposes, require about one-half of that amount, or 650 units. For good hatchability it requires somewhat more, about 1200 units per gram.

By and large, I would say that you will meet the vitamin G, or riboflavin, requirements of growing chicks and for hatchability purposes if you will include 5 per cent of a good grade of milk or its equivalent and 5 per cent of a high quality alfalfa meal in the total ration.

If you are interested merely in egg production, I would say, roughly speaking, one-half or 2½ per cent of milk and 2½ per cent of alfalfa, or somewhere in that neighborhood.

But don't expect those eggs to hatch very well! If you expect good hatchability from those eggs, you must increase the milk or alfalfa intake, preferably both.

VITAMIN B₁ WIDESPREAD.—Has been shown to be required by poultry. If you feed a bird or a chick a ration deficient in vitamin B₁ it will develop nervous lesions. You will notice retraction of the muscles of the neck—so much so that frequently these birds will turn a back somersault or a cartwheel. Fortunately, our poultry feedstuffs, especially grains and cereal by-products, abound in vitamin B₁.

The average good poultry ration in which whole, sound grains or ground, whole, sound grains and cereal by-products are used, such as wheat brans, wheat middlings, and alfalfa meal, will carry from two to three times the requirement of B₁ for birds. In a practical sense, we can forget about it because we automatically take care of the vitamin B₁ requirements.

Blend of Fish Oils Fill Vitamin D Needs of Turks

The vitamin D requirement of turkeys cannot be stated precisely in A.O.A.C. chick unit terms, according to T. H. Jukes and T. D. Sanford of the University of California, but the value of 200 chick units per 100 grams of diet was approximately the amount required to support normal development of turkeys to 4 weeks of age.

A series of experiments were conducted with turkeys to learn the influence of various levels of vitamin D intake, the measurement being the bone ash content of the tibia bone at 4 weeks of age. Maximum bone ash values approximated 50%.

U. S. P. reference cod-liver oil and a fish oil blend were used as sources of vitamin D. The blend contained about 450 units of vitamin D per gram as determined by chick assays based on the value of 95 units per gram for the reference cod-liver oil. The fish oil blend was more effective, chick unit for chick unit, than the cod-liver oil as a source of vitamin D for poult, the efficacy ratio being about 1.4:1.

Satisfactory growth and calcification in the complete absence of sunlight were produced when turkeys received 0.4 gm. of the fish oil blend per 100 gm. of diet, while significantly poorer calcification resulted when 0.3 gm. was used. Growth rate of poult was markedly influenced by the vitamin D content of the diet.

Dec. 31 has been set as the deadline for filing of claims for refunds of processing taxes paid under the A.A.A.



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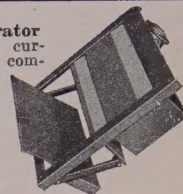
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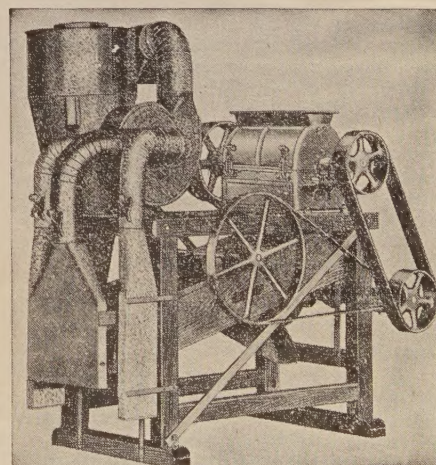
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Some Essential Constituents of Poultry Feeds and How They Are Affected by Storage

By R. V. BOUCHER, Pennsylvania State College, before Pennsylvania Millers and Feed Dealers Ass'n.

[Continued from page 453.]

The chief function of vitamin D is to assist in the utilization of calcium and phosphorus in the building of the bony structures and the production of egg shell. It exerts an influence upon both the number of eggs produced and upon their hatchability. A part of the vitamin is stored in the egg yolk and is thus transferred to the newly hatched chick. It is fat soluble and relatively stable to heat, light and oxygen. There are no known species of animals that require vitamin D in their food provided they are sufficiently exposed to sunlight, since ultra violet light converts a sterol in the skin of the animal to vitamin D. It is only since man has worn clothes and spent much of his time in houses or other shelters away from sunlight that he has been subject to rickets. Likewise, only since chickens have been kept in confinement or reared out of season has rickets been a problem in the poultry industry.

Rickets is characterized by poor calcification of the bone. The leg and breast bones are usually crooked and easily fractured. Abnormal calcium and phosphorus relationships in the blood also accompany rickets.

Work done here at the Pennsylvania State College has shown that growing chicks, deprived of sunlight, require approximately 177 units of vitamin D per pound of feed (two pounds of 400 unit oil per ton). If the chicks are brooded in the summer and have access to direct sunlight thru open-front houses or if they are on range, it is not necessary to supply vitamin D. It is felt, however, that due to variation in weather and to the diversity of conditions encountered in the field, it is desirable to feed at least half the above level even if some sunlight is available.

In the same report it was also shown that laying hens require twice as much vitamin D as growing chicks, that is, one pound of all mash laying ration should contain approximately 354 units of vitamin D (four pounds of 400 unit oil per ton). An inadequate amount of this vitamin may be responsible for poor shell quality. Hence, with a high producing strain, it would probably be good economy, during the winter months, to increase the vitamin D intake to 450 units per pound of feed.

It is not surprising that the requirement of the laying hen for vitamin D, as well as many of the other essential nutrients, is increased, when one realizes that in one year a hen may produce from four to six times her own body weight in eggs. Since 10 per cent of the weight of an egg is shell, the hen would have to consume approximately one-half of her body weight in limestone in order to furnish calcium for the shell alone. It has been calculated that a hen which lays one egg per day, requires for the egg alone twice as much calcium as a child, many times the size of the hen, needs for growth. Thus, the fact is emphasized that, in addition to the energy requirement, there are large demands for all the constituents that go to make up an egg.

There are two highly satisfactory things about vitamin D from the standpoint of the feed manufacturer. First, vitamin D can be purchased on the basis of a guaranteed unitage. Therefore, when dealing with a reputable firm, you know exactly how much vitamin D you get for your dollar. Second you know how much vitamin D is required by poultry and, best of all, you know that when this amount is mixed in the mash it will be there when it is fed to the chickens, because it is not lost during storage.

Vitamin E is sometimes known as the fertility or anti-sterility vitamin. It is usually prepared from wheat germ, and is fat soluble.

All evidence points to the fact that vitamin E is very widely distributed in natural feeds and is quite stable to heat, light and mild oxidation in some forms. It appears to be susceptible to loss if stored in the presence of rancid fats; however, some control is exercised over this reaction by the presence of anti-oxidants which occur in cereals, notably wheat and oats.

Both the male and female require vitamin E for normal reproduction. Unless the hen is supplied with the vitamin, the fertilized embryo dies in the egg about the fifth or sixth day of incubation. The degeneration of the testes of the male occurs in birds just as it occurs in mammals without adequate vitamin E. However, it takes from one to two years before the deficiency affects the cockerels. These facts were brought out clearly by investigators at the Illinois Agricultural Experiment Station, who conclude that "Considered from the standpoint of the length of time involved, it is apparent that the testis is very resistant to the effects of vitamin E deficiency."

While there is no doubt that vitamin E is essential in poultry nutrition, there is no evidence which has received general acceptance that indicates vitamin E is likely to be deficient in modern poultry feeds. In fact, all that is known about vitamin E, its relative stability and wide distribution emphasizes the fact that it is very difficult if not impossible to formulate a ration of natural foodstuffs which would be deficient in this vitamin.

As to the effectiveness of vitamin E in preventing or curing fowl paralysis, one has only to recall that the commonly used forage plants are good sources of vitamin E and that it is general knowledge that flocks on the highest quality range often suffer severely from paralysis.

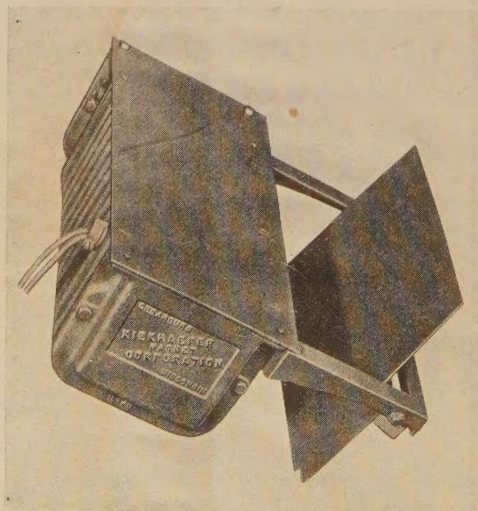
[To be continued.]

An Improved Spout Magnet

After several years of research in the design of magnetic separator equipment, engineers of the Kiekhaefer Corporation, have developed what is known as the "Twin Flux" Spout Magnet. In view of the many disastrous explosions and fires that have occurred of late, this news should be of considerable interest to elevator operators and employees.

The "Twin Flux" Separator is a magnetic unit which has cooling ribs extending completely around the separator, with the exception of the separating surface itself. Another exclusive feature is the magnetically actuated gate that is independent of the separating magnet. This insures quick, fool-proof gate action, which prevents metallic particles that have been retained on the surface of the magnet from getting by the gate.

Impregnated with high temperature, water-proof sealing compound, the coil of the new



Magnetic Separator for Spouts.

Separator is virtually weather-proof, water-proof and vibration-proof. The latter feature is of particular value in hammer mill installations. The "Twin Flux" construction features provide almost double the pull per unit area at a considerably greater depth of field and lower current consumption.

Constructed of dynamo steel bars and aluminum, and designed in full accordance with the standards of the A.I.E.E., these spout magnets are available in a complete range of sizes, from the smallest mill spout to the largest elevator hopper.

New Feed Merchandising Program

A. G. ("Chick") Philips, General Sales Manager of Allied Mills, Inc., manufacturers of Wayne Feeds, outlined the company's new 1940 Feed Merchandising Program to District Sales Managers in a meeting held at the Union League Club, Chicago, on Dec. 4th, 5th and 6th. The program is built around Wayne's new Triple Test System, a new dealer prize program and the Wayne Savings Plan.

The Wayne Triple Test System is an unusual development for controlling quality in feeds. A significant series of tests made during the past two years by the Allied Mills Research Division proves that two feeds of identical formula and general chemical analysis can produce far different results in the brooder house and feedlot. Ingredient Quality (I-Q)—and not feed formula alone—makes a difference in results.

A new dealer prize program is also being offered as a part of the new Wayne merchandising program. Prizes in this contest will be given to dealers and employees.

Feed Mill Grinds 33,763 Tons Feed in 10 Years

When a feed mill's grinding revenue exceeds \$5,000.00 a year, for ten years, that's good news. But when you figure that the average price received for the grinding was only 8c per hundredweight—that represents a lot of feed.

Such is the record of a No. 3-S "Jay-Bee" 60 h.p. Direct-Connected Mill owned by the Hinckley Grain Co., Hinckley, Ill., A. K. Clark, manager. Mr. Clark's ledgers show that this mill ground, from September, 1928, to December 18, 1939, 67,526,200 pounds of feed, or 33,763 tons. This is enough feed to fill 1,688 twenty-ton cars, or a solid trainload eleven and a half miles long.

This record proves what a good mill and good management can do. For over 3,000 working days, this "Jay Bee" mill has averaged grinding ten tons of feed every day. The gross intake has been \$54,021.00. The most remarkable feature of this enormous grinding is the fact that only \$965.00 has been spent to maintain the motor and mill; only about \$300.00 was spent on the mill for hammers and screens.

This mill is still in good condition, grinding every day. But due to the increased business which "Jay Bee" efficiency has created, the Hinckley Grain Co. has just purchased another and a larger "Jay Bee" grinder.

Canadian Mills during October ground 9,383,192 bus. of wheat, compared with 8,531,847 bus. for the corresponding month of the previous year. In the coarse grain group, corn, barley and mixed grain were higher than for October, 1938, while oats and buckwheat were lower. Mill stocks of wheat on Oct. 31, 1939, amounted to 6,514,842 bus., while for the like month in 1938 the amount was 4,451,326 bushels. Flour production in October, 1939, amounted to 2,089,562 barrels compared with 1,906,385 barrels for the like month last year. Exports of flour in October, 1939, amounted to 444,144 barrels compared with 528,601 barrels in October, 1938, as reported by the Dominion Bureau of Statistics.

Feed Control Definitions

The executive com'te of the Ass'n of American Feed Control Officials adopted the following resolutions at its annual meeting in the Raleigh Hotel, Washington, D. C., Chairman H. H. Hanson presiding:

Pellet Feeds

Resolved, that the same feeds in pellet and in meal form should not be charged more than one registration fee.

Tag and Bag Labels Same

Resolved, when feedstuffs carry label information on both tag and bag, there shall be no difference with respect to name, ingredients and guaranteed composition.

Brewery Products

The com'te recommended the appointment of an independent investigator on brewery products; and continuation of the work on distillery products.

Citrus Products

The com'te moved that the tentative definition for dried citrus pulp (T-2) be made official.

Milk Products

The com'te moved that the proposed definition for condensed whey (F-3) read as follows:

Condensed whey is the product resulting from the removal of a considerable portion of water from clean, sound cheese or casein whey, either or both. It contains not less than 27% of total solids.

The com'te moved that a definition be adopted for future consideration as follows:

Condensed whey —% solids is the product resulting from the removal of a considerable portion of water from clean, sound cheese or casein whey, either or both. It contains more than 27% of total solids.

Molasses

The com'te moved that tentative definition T-15 for feeding cane molasses be amended to read as follows:

Feeding cane molasses is a by-product of the manufacture of cane sugar from cane and shall contain at least 48% of total sugars calculated as invert sugar. Its solution in an equal weight of water shall test not less than 39.75 degrees Brix.

Peanut Products

The com'te moved that the following definitions for peanut oil cake and —% protein peanut oil meal be adopted as tentative:

Peanut oil cake is the residue after the extraction of part of the oil by pressure or solvents from peanut kernels as produced under reasonable milling conditions.

—% protein peanut oil meal is ground peanut oil cake. It must be designated and sold according to its protein content.

Whereas, many states which have adopted the association's definitions for peanut products require that a guaranty of crude fat and crude fiber content in peanut oil meal be made, therefore, for the sake of uniformity of labels and registration, and in such cases where there is no conflict with existing feed laws; be it

Resolved that the following guaranties of crude fat and crude fiber be recommended:

For 41% protein peanut oil meal, not less than 6% crude fat, not more than 16% crude fiber; for 45% protein peanut oil meal, not less than 6% crude fat, not more than 14% crude fiber; for 48% protein peanut oil meal, not less than 6% crude fat, not more than 10% crude fiber.

Soybean Oil Meal

The com'te moved that definition T-10 be adopted as official:

—% protein soybean oil meal is ground soybean oil cake or ground soybean oil chips. If a name descriptive of the process of manufacture, such as expeller, hydraulic, or solvent extracted, be used, the product must correspond thereto.

Urea in Feeds

Recommended that the recommendation of the investigator on urea in feeds be accepted and strongly urges that the members of this association accept during 1940 no registrations which include as an ingredient the product urea.

Vitamin

Moved that resolutions 9 and 12 be rescinded and replaced by the following:

Resolved, that this association go on record as condemning the use of the word "vitamin" or a contraction thereof, or any word suggesting "vitamin" in a brand name of a feed, and as opposing the acceptance of registration of feeds under names which are in conflict with this resolution excepting for materials which are solely to be vitamin supplements. Such supplementary material shall be labeled as prescribed by this association.

Artificial Colors

That resolution 11 be amended to read as follows:

Resolved, that this association go on record as

disapproving use of artificial colors in the manufacture of feedstuffs, excepting use of a Federal Food, Drug and Cosmetic Act certified dye or dyes solely to indicate the distribution of a valuable ingredient or ingredients. The dye or dyes shall not affect the natural color of the treated feedstuff.

Cod Liver Oil

That the rules of this association be suspended to permit the change in the definition of cod liver oil (No. 80), raising the minimum of 600 U.S.P. units of vitamin A to 850 U.S.P. units of vitamin A so that the product will conform with the new U.S.P. definition to be effective on July 1, 1940.

The com'te moved the adoption as tentative of the following definition:

Vitamin A and D feeding oil is either fish or fish liver oil, or a blend of two or more of the following: vitamin A and/or D concentrate, synthetic vitamin D, fish liver oil, fish oil, or edible vegetable oil. The vitamin potency shall be stated in A.O.A.C. units of vitamin D and U.S.P. units of vitamin A per gram. This is an emergency definition and can be used only for calendar year 1940.

The foreign situation hampering the imports of cod liver oil is responsible for this definition. When used in a mixed feed it shall be listed as Vitamin A and D Oil in the ingredients.

Effect of Solvents and Heat on Proteins of Soybeans

At the annual meeting of the American Soybean Ass'n a paper was read prepared by Margaret Johnson, Helen T. Parsons and Harry Steenbock of the departments on home economics and biochemistry of the College of Agriculture, Madison, Wis., giving the results of experiments with expeller and hydraulic soybean oil meals, as follows:

In 1936 it was demonstrated at the Wisconsin Experiment Station that the proteins of expeller and hydraulic soybean oilmeals prepared at high temperatures were nutritionally superior to those prepared at low temperatures. Later Cornell experiments reported that solvent soybean oil meal was superior to the high temperature expeller and hydraulic meals. They suggested that since the temperature used in the solvent process was considerably lower than that used in the preparation of the expeller and hydraulic meals, a factor other than temperature was responsible for the difference.

The question arose as to whether treatment with certain fat solvents could alter the protein molecule of the soybean so as to make it more available.

Nothing Toxic in the Raw Meal.—Other investigators have given consideration to the removal of hypothetical toxic factors by solvents or their destruction by heat. Osborne and Mendel who studied the nutritive value of soybeans as early as 1917, stated that "evidently there is nothing toxic in the raw meal, for none of the rats which ate it died." Waterman and Johns reported that the increased digestion of phaseolin after heating was due to the "loss of a protein toxicity or the destruction of an associated toxic substance." Shrewsbury and co-workers observed that cooking increased the digestibility of the soybeans only slightly. Their theory was that heating caused the removal or destruction of certain materials of a toxic nature.

Since the work at Wisconsin had shown that heated soybeans had a higher biological value than raw soybeans and that cystine additions to raw soybeans increased the amount of nitrogen retained, it appeared desirable to obtain data on sulfur balances in addition to nitrogen.

Experimental.—Soybeans (Illini variety) harvested in 1934 were used to prepare expeller soybean meals in commercial plants, and autoclaved and solvent samples were prepared in the laboratory. The expeller soybean meal used for our feeding trials had been exposed to the comparatively high temperatures of 150 degrees C. The autoclaved soybean preparations were prepared by autoclaving them for one and one-half hours at 17 pounds pressure.

The solvents used for the extraction of the soybeans were commercial petroleum ether, hexane, and a mixture of 90 parts of hexane and 10 parts of methanol.

The soybean residues and oils were fed to rats in the following combinations: (a) residue plus

oil prepared at room temperature; and (b) residue and oil autoclaved together at 17 pounds pressure for 1½ hours. The composition of the rations in which these were fed was as follows: solvent treated soybean 46 parts, cod liver oil 2 parts, salt mixture 4 parts, and cooked starch 48 parts. The raw or autoclaved soybeans were fed in the following ration: soybeans 45, cod liver oil 2, salt mixture 4, and cooked starch 49. In the soybean oil meal ration 38 parts of the meal were mixed with 8 parts of soybean oil so as to equal the ratio in which they occur in the raw soybean. The protein was fed at a level of 18 per cent. Sulfates were omitted from the salt mixture.

Results.—The sulfur was found to be absorbed to the same degree on all the rations, with an average coefficient of digestibility of 63.0 per cent. The retention of sulfur, on the contrary, varied greatly. The amount retained, on the heated soybean rations, viz., commercial soybean meal and soybeans autoclaved in the laboratory ranged from 30.3 to 44.7 per cent of the intake, the average being 40.1 per cent; on the raw soybean rations, 12.0 to 23.1 per cent with an average of 16.6 per cent.

With the solvent-treated soybean prepared at room temperature, more sulfur was retained from rations in which the residues and oil from these had been autoclaved together than from rations in which they were fed together with no heat treatment. In the former the sulfur retention averaged 50.1 per cent, in the latter 20.5 per cent. Apparently the solvent itself had no beneficial effect. The results on nitrogen balances showed that on heated soybeans the rats retained about 2.5 times as much sulfur and about 1.8 times as much nitrogen as on the raw soybeans.

Discussion.—Some workers have contended that soybeans are deficient in cystine. They based their conclusion upon the observation that ether extracted soybeans plus cystine produced a greater increase in the weight of animals than unsupplemented soybeans. Both the ether extracted soybeans and the unsupplemented soybeans were fed unheated.

Osborne and Mendel pointed out that heat improved the nutritive value of the soybean. Extracting the soybean with ether failed to increase its biological value. Cooking the soybean made it more palatable than the raw. In this manner the increased food consumption resulted in a better gain. Vestal and Shrewsbury concluded from metabolism studies that improved growth on cooked or roasted soybeans was due to an increase in food consumption and a slight increase in the digestibility of nitrogen.

Hayward, Steenbock and Bohstedt found that cystine supplemented the raw soybean but failed to cause any improvement of the heated soybean. From both growth studies and nitrogen balances it was concluded that heat was the factor which caused the protein to be better utilized.

Heat Improves Nutritive Value.—In the present study the observation that heat improved the nutritive value of the soybean was confirmed. Sulfur metabolism studies showed clearly that the digestibility of the protein was approximately the same for the raw and heated soybean. The difference lay in the availability of the products of protein digestion. More sulfur was retained on the heated soybean than on the raw.

The results on the soybeans treated with various solvents are contrary to those of a number of other investigators who concluded that the action of the solvent itself was a factor which could increase the biological value of the protein. Some of these workers used commercial solvent soybean oil meal which had been exposed to a temperature of 98 degrees C. for 15 minutes and to temperatures of 45 to 78 degrees C. for an unspecified period. In our preparations the soybeans were extracted at room temperature, approximately 20 to 25 degrees C., and the solvent was removed from the oil at the same temperature. Therefore, heat was excluded as a determining factor.

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